



9 *Organizing and Implementing the Curriculum*

AFTER STUDYING THIS CHAPTER YOU SHOULD BE ABLE TO:

1. Describe and state strengths and weaknesses of various plans and proposals for organizing and implementing the curriculum.
2. Relate each organizational arrangement discussed in this chapter to (a) the psychological and sociological circumstances of the public school and (b) the achievement of one or more aims of education or curriculum goals at each of the three school levels: elementary, middle, and senior high.
3. Specify several curriculum goals for the elementary, middle, or senior high school level; choose or design and defend a curriculum organization plan that you believe will most satisfactorily result in accomplishment of these goals.

NECESSARY DECISIONS

A Hypothetical Setting

Imagine, if you will, a building complex of three schools—an elementary school of five grades plus kindergarten, a middle (formerly junior high) school of three grades, and a senior high school of four grades situated on a large tract of land. We could place this complex in a small town in any state where the three schools serve all the children of a particular school district, or we could locate it in a sector of a large urban area where the three schools are a part of the local school system.

Let's create in our own minds the administrative offices of the superintendent (or area superintendent) and school board across the street from this complex. From a second floor conference room we can look out on the children at play in the elementary school yard, we can see awkward teeny-boppers of the middle school up the street to our right, and we can observe the senior high school Harrys and Janes spinning out in their gasoline chariots from the parking lot in the background.

On a particular day in September a group of curriculum planners has gathered in the conference room. It is 4:00 P.M., and for the moment they stand at the window looking over the complex across the way. Activity at the elementary school has virtually ceased for the day, has just about tapered off at the middle school, and continues apace at the senior high school. Only two cars remain in the elementary school parking lot—the principal's and the custodian's.

Making up the curriculum group are the district supervisor (director of curriculum) and the chairpersons of the district curriculum steering committee and the curriculum councils of each of the three schools. In front of them—in finished form, neatly typed and packaged—are (1) the report of the needs assessment that revealed gaps in the school district's curricula and (2) a set of both district and individual school curriculum goals and objectives that they laboriously hammered out with the help of many faculty members, students, administrators, supervisors, and lay citizens.

Hypothetical Steps

The task of this curriculum group now is to decide on next steps. What do they do with the curriculum goals and objectives now that they are specified? Shall they duplicate, distribute, and then forget them? Shall they take the position that the process of defining the goals and objectives was sufficient or that the process should lead to further action? Shall they file the goals and objectives with the superintendent and principals, to be pulled out on special occasions such as visits of parent groups, accrediting committees, or others? How shall they meet the discrepancies shown by the needs assessment and the curriculum goals and objectives developed as a result of that assessment?

The curriculum planners of the district, whose leadership is represented by this committee, must decide how to put the goals and objectives into effect and how to organize the curriculum in such a way that the goals and objectives can be achieved. They must decide what structure will be most conducive to successfully accomplishing the goals and objectives and to fulfilling learner needs. They must ask themselves and their colleagues how best to go about implementing the curriculum decisions that they have made up to this point.

Assessing Curriculum Organization

The question is often posed to curriculum workers: "How shall we go about organizing the curriculum?" The literature often appears to make one of two assumptions: (1) Curriculum planners regularly have the opportunity to initiate a curriculum in a brand new school (or perhaps in a deserted old school) for which no curriculum patterns yet exist; or (2) curriculum developers automatically have the freedom to discard that which now exists and replace it with patterns of their own choosing.

Both assumptions are likely to be erroneous. Curriculum planners do not frequently experience the responsibility for developing an original curriculum for a brand new school (or more accurately, for an upcoming new school, since planning must precede construction). It is true, of course, that new schools are built to meet growths and shifts in population and to replace decrepit structures, which, like old soldiers, slowly

fade away. The development of a curriculum for a brand new school does provide the opportunity for curriculum planning from the ground floor, so to speak. But even that planning must be carried out within certain boundaries, including local traditions, state and district mandates, and the curricula of other schools of the district with which they must articulate. Curriculum planners cannot expect simply to substitute as they wish new patterns of curriculum organization for old. Again, we face certain parameters: student needs, teacher preferences, administrators' values, community sentiment, physical restrictions, and financial resources.

Our fictitious curriculum group is talking about possible ways of reorganizing the curriculum to meet pupil needs and to provide the best possible structure for attaining the district's and each school's curriculum goals and objectives. The group decides that one way of approaching this task is to consider the schools' past, present, and future ideas for curriculum organization. They will identify patterns that have been tried, those currently in operation, and those that might be feasible or successful in the immediate and distant future.

At this meeting the committee decides to clarify what they mean by curriculum organization. They agree to talk with their colleagues on their schools' curriculum councils and others and come to the next meeting of this group prepared to trace the historical development of the curricular organizations of the three schools. Each will provide an overview of the more significant patterns of curriculum organization that have been studied and implemented, studied and rejected, and considered for future implementation.

Before adjourning this meeting, the committee agrees on what they will include under the rubric of curriculum organization. They define *curriculum organization as those patterns of both a curricular and administrative nature by which students encounter learning experiences and subject matter*. Thus, it includes not only broad plans for programmatic offerings, such as the subject matter curriculum, but also delivery systems, that possess an administrative dimension, such as team teaching.

Several weeks later when the committee reassembles, exhilarated by its research on the history of curriculum development in their schools, they express a newfound admiration for previous curriculum planners. Whereas the aging facades of the buildings might convey to the outside world, as the French say, that "the more things change, the more they stay the same," inside, innovation and change have been key words. The committee spends several sessions sharing their discoveries and studying what the experts say about the structures uncovered. The committee is sure that by examining past patterns, projecting future arrangements, and comparing both past practices and future possibilities with present structures, they can create more effective ways of implementing the curriculum.

This hypothetical committee's discoveries are significant enough to be shared with you. Our discussion will be organized into three major parts: the past (Where We've Been), the present (Where We Are), and the future (Where We're Going). For each period some major plans in school and curriculum organization at each of three levels—elementary, junior high/middle school, and senior high school—are described.

Remember that Axiom 3 in Chapter 2 postulates that changes do not, as a rule, start and stop abruptly but overlap. Axiom 3 applies to our hypothetical community as it does elsewhere. Consequently, when I discuss the graded school, for example, as a place

where we have been, I do not imply that it has necessarily disappeared from the present or that it will not exist in the future. When I discuss the middle school, I do not suggest that its predecessor, the junior high school, no longer exists.

Nor are curricular arrangements always confined to one level. The subject matter curriculum, the graded school, the nongraded school, team teaching, and flexible scheduling exist or have existed at more than one level. By placing a curricular arrangement at a particular level, I am not saying that it could not be found or could not have been found either at the same time or at another time at other levels even in the hypothetical community used for illustrative purposes.

However, you would tire if, for example, discussion of the subject matter curriculum were repeated at each of the three levels. Therefore, I have placed the arrangements, perhaps arbitrarily, at levels where the arrangements were particularly strong, significant, or common. Unless a curricular arrangement had particular significance for more than one level and possessed distinctive characteristics for each level, as in the case of the nongraded elementary school and the nongraded high school, a particular plan is discussed at only one level.

Table 9.1 shows various curricular and organizational developments and recommendations tried in the past or present and proposals for future change. To avoid repetition many of the developments shown in the column *Where We Are (Present)* will continue and have not been listed in the *Where We Are Going (Future)* column. Their presence in the Future column does not mean that they do not exist in the present but that they are likely to become more widely adopted as years go by.

WHERE WE'VE BEEN: CURRICULUM PAST

THE ELEMENTARY SCHOOL

The Graded School

Historians tell us that the concept of a graded school started in Prussia, a land famed for discipline and regimentation, and migrated across the ocean to the New World.¹ The Quincy Grammar School of Boston, which opened in 1848, is credited as the first school in the United States to become completely graded. With enough youngsters for several groups, it took not a quantum leap but a simple bit of ingenuity to reason that youngsters might be taught more efficiently if they were sorted and graded. Instead of being mixed, they could be divided largely on the basis of chronological age.

The graded school has become the standard model not only for the United States but also for the world. As our country grew in population, expanded westward, and became industrialized, the number of grades provided for children by the numerous school districts of the nation increased in proportion.

By the early twentieth century twelve grades were made available and were considered sufficient for most boys and girls. School systems grew, providing the opportunity for young people to receive not ten, not eleven, but twelve years of education at public expense. For one reason or another many children and youth in early days (and to a

TABLE 9.1 Developments and Recommendations of the Past, Present, and Future

Level	Where We've Been (Past)	Where We Are (Present)	Where We're Going (Future)
Elementary	Graded school Activity curriculum Nongraded elementary school Open education and open space	Basic skills *Assessment Teaching thinking skills *Provision for students with special needs, inclusion Multiage grouping *Multicultural education *School choice *Homeschooling *Charter schools *Vouchers/tax credits *Bilingual education Cooperative learning *Whole language *Core knowledge Character education *Year-round schools	Blending of traditional and nontraditional modes Changing status of public education Increase in private education Decrease in social promotion Alternative organizational plans Differentiated classrooms Continued assessment Continued school choice
Junior high/middle	The school in between: the junior high school Conant's recommendations ASCD proposals Core curriculum	Middle school Inter-disciplinary teams *Assessment	Predominance of the middle school but some reversion to K-8 schools Integrated curriculum Block/rotating schedules *Single-gender classes and schools Continued assessment
Senior high	Subject matter curriculum Conant's proposals Broad-fields curriculum Team teaching and differentiated staffing Flexible and modular scheduling Nongraded high school Ability grouping Tracking Programmed instruction Instructional television	Comprehensive high school Magnet schools Higher requirements for graduation Technological education Community service *Health education *Outcomes-based education *State and national standards *State and national assessment, exit exams Extended day and year Performance-based assessment School-to-work programs	Technology in education Continued exit exams Early-college high schools Conversion to smaller learning communities

Note: Although developments (other than assessment) on this chart are classified at only one level to avoid duplication, many are applicable at more than one level.

*See Chapter 15 for discussion of these developments.

decreasing extent today) were not able to complete the twelve grades of elementary and secondary education even in communities that offered twelve grades. We could add in passing that both public and private community junior colleges and senior institutions have been established to offer youth opportunities for further learning, but that's another story in itself.

Twelve Years as Norm. Administrators, curriculum experts, teachers, and the public have accepted the twelve years as a norm for most of our young people and have adjusted the component levels as the situation seemed to demand. Thus, until rather recently the most common organizational plan for schools across the country was the eight-four plan (eight years of elementary school and four of secondary school). Under this plan grades seven and eight were considered parts of the elementary rather than the secondary school. As the junior high school began to emerge after the first decade of the twentieth century, the six-two-four plan (six elementary, two junior high, and four senior high grades) offered a variant to the eight-four.

Communities of moderate size showed a fondness for the six-six plan (six elementary and six secondary), which clearly attaches junior high school to secondary education while at the same time burying its identity in that of the senior high school. Larger communities expressed a preference for the six-three-three plan with three years of junior high school between the elementary and senior high school. The three-year junior high school combining grades seven, eight, and nine replicated the structure of the first junior high schools that came into existence in 1909 in Columbus, Ohio, and in 1910 in Berkeley, California. Other variations have been suggested such as the six-three-five plan and the six-three-three-two plan, which would extend public secondary education through grades thirteen and fourteen. Those last two years, however, have clearly become identified with the college level. The rearrangement of the twelve years of public schooling has continued to the present, as we shall see later when we discuss the development of the middle school.

The concomitant outgrowth of the graded school was the self-contained classroom—a heterogeneous group of youngsters of approximately the same age, in multiples of twenty-five to thirty-five, under the direction of one teacher. Primary school teachers of the graded school were no longer required to master all disciplines of all grades like their counterparts in the one-room school but only to master all disciplines at the particular grade level. The group of children assigned to a teacher in a self-contained, graded elementary school spent the entire day under the watchful eye of that teacher. It has taken militant action of teacher organizations in recent years to pry loose some breathing time for elementary school teachers during the school day.

The concept of the graded school, aided by the measurement movement in education, has firmly established the principle that certain learnings should be accomplished by pupils not at certain periods of growth and development but by the end of certain grade levels. Syllabi, courses of study, and minimal competencies have been determined for each grade level. State content standards have been specified for various fields of instruction.

In the graded school, material is tailored to fit the confines of fixed times during the customary ten months of the school year. Thus, by means of a standardized test of read-

ing, for example, we can state that a third-grade child in April (the eighth month of the school year) whose test score placed him or her at the grade norm of 3.2 (second month of the third-grade year) was reading at a level six months below the norm for that grade.

When we speak of the self-contained classroom, we normally think of the elementary school. We sometimes forget that the self-contained classroom has been the prevailing pattern in the secondary school except for a brief period of popularity of core programs, which we shall discuss later.

Like the junior and senior high schools, the elementary school adopted an organizational framework that stressed the mastery of subject matter. This framework, commonly referred to as the subject matter curriculum, will be examined shortly.

Typical Schedule. A typical week in a self-contained, subject-oriented elementary school calls for separate subjects scheduled at specific and regular times during the day. Little or no effort is made to integrate these diverse areas. Some elementary schools, of course, have never departed from this model, whereas others departed for a time and then swung back in recent years.

In the late 1920s, through the 1930s, and into the 1940s, many elementary schools, warmed by the glow of the progressive movement that championed the child over subject matter, abandoned the subject matter curriculum for the activity or experience curriculum.

The Activity Curriculum

The activity (or experience) curriculum was an attempt by educators to break away from the rigidity of the graded school. It is of historical interest that the activity curriculum was a contribution of two of the better-known laboratory schools—the Laboratory School founded by John Dewey at the University of Chicago and the University Elementary School directed by J. L. Meriam at the University of Missouri. The activity curriculum came about as an effort to translate progressive beliefs into the curriculum. As such, it captured the imaginations of elementary school educators in the first quarter of the twentieth century.

Disenchanted with the subject matter curriculum promoted by the essentialist philosophers and curriculum makers, Dewey and others sought to free the learner from the confines of a subject-centered curriculum and to create an environment that catered to the learner needs and interests.

Human Impulses. B. Othanel Smith, William O. Stanley, and J. Harlan Shores observed that Dewey's Laboratory School curriculum was based on the following four human impulses, which Dewey referred to as "uninvested capital":

the social impulse, the constructive impulse, the impulse to investigate and experiment, and the expressive or artistic impulse.²

Dewey's curriculum eschewed the usual subject organizers and focused on occupations in which all men and women engaged—carpentry, cooking, and sewing.

Human Activities. The University Elementary School at the University of Missouri followed principles advocated by Junius L. Meriam and structured its program not around subjects but around human activities of observation, play, stories, and handiwork.³ The California State Curriculum Commission outlined a daily program for an activity curriculum as shown in Table 9.2. As these two examples reveal, the content of the activity curriculum is centered on projects or experiences that are of immediate interest to the learners. The various subjects, including the basic skills, are used as a means of promoting learning rather than as ends or centers of learning for themselves.

Subject Matter from Child's World. Here the curriculum is developed by the teacher in cooperation with the pupils. The subject matter evolves from the child's world rather than from the adult world. Although the teacher can suggest activities or problems to the learners, the children's interests become the dominant factor. William H. Kilpatrick advocated pupil activities that he referred to as projects (ergo, the "project method") and took the position that the child should do his or her own thinking and planning.⁴

Problem solving—Dewey's "reflective thinking"—is the activity curriculum's instructional method par excellence. Experience in the process of problem solving is perceived by those who espouse progressive thought as more important than attaining the solutions to the problems. A great effort is made to integrate subject matter, using any and all content as needed without regard to discipline boundaries, for the solution of problems or carrying out of projects.

By its very nature, the activity curriculum cannot be fully planned in advance. Consequently, the activity curriculum can be described only after it has been completed, for the teacher cannot be sure in advance where the interests of the students will lead them.

The unit method of organizing instruction (a unit of work centered on a single topic or problem) lends itself well to the goal of problem solving. Units are designed by the teacher in cooperation with the pupils to include a sufficient variety of activities to provide for individual differences among pupils. A series of units can provide a skeletal framework for a given grade level.

Drill, if needed, is carried out in meaningful terms, not in isolated rote fashion. With the social orientation of the progressivists, the activity curriculum calls for the socialization of the learners and the use of the community as a learning laboratory.

Scheduling is flexible with time allotments variable depending on the activities under way. Pupils are grouped according to interests and abilities, obviating the need for fixed grade levels. Some schools tossed out marks, report cards, and the assumption that certain learnings have to be mastered at each grade level.

The teacher of the activity curriculum finds his or her role not as subject matter specialist and expert-in-residence but rather as a guide and facilitator of learning. Key concepts that the progressivists wove into the activity curriculum are the active rather than the passive role of the learner and the sharing of students' experiences with the teacher and each other.

The activity curriculum, like progressive education itself, left its indelible imprint on American education. Flexible scheduling, unit teaching, problem solving, project

TABLE 9.2 Schedule for an Activity Curriculum

Time	Monday	Tuesday	Wednesday	Thursday	Friday
9:00	Informal greetings, reports, observations, rhymes, music, events of current interest, informal activities designed to create a mental set conducive to a happy, profitable day.				
	Arithmetical Enterprises				
9:15	Playstores, banking activities, handling of school supplies, etc. Although rich in arithmetical content through which the child is trained in skills and abilities, such units also yield abundantly in group and individual situations which develop initiative, responsibility, and cooperation. The flexible period provides opportunity for individual instruction.				
	Healthful Living Enterprises				
10:00	Physical education enterprises, free play, the nutrition program, and adequate relief periods are provided for daily; units of work such as: "the study of milk," "a balanced meal," etc., provide enterprises which have healthful living as a center of interest but provide situations development of social and civic attitudes as well.				
	Language Arts				
10:50	Oral and written composition, spelling and writing develop from activities rich in opportunities for expression, as the writing of a play to be presented in the auditorium period, puppet shows, the school newspaper, etc. The period should provide opportunity for literary discrimination and original expression; the long period provides for concentration of effort and attention according to individual interest and need.				
12:00	Lunch, Rest and Directed Playground Activities				
	Avocational Activities				
1:00	Music; activities, music appreciation, rhythm, harmonica, band, orchestra, etc.	Nature Club, school museum, aquarium, gardens, terrarium.	Creative art and constructive activities in pottery, weaving, painting, drawing.	Use of auditorium for music, dancing, dramatics, projects, stagecraft, related to class activities.	Civics Club Committees responsible for various phases of school life.
1:50	Recreation and Rest				
	Reading Groups: Library Activities				
2:00	Group organization on the basis of reading ability provides opportunity for remedial work with children having reading deficiencies and library guidance to superior readers. The quiet reading period may contribute to the development of information needed in the class activities related to social science, avocational, or health or other interests.				
2:50	Recreation and Rest				
3:00	Social studies activities	Social studies activities	Free creative work period	Social studies activities	Shop enterprises

Source: Ruth Manning Hockett, ed., *Teachers' Guide to Child Development: Manual for Kindergarten and Primary Teachers* (Sacramento, Calif.: California Department of Education, 1930), pp. 355-356. Reprinted by permission.

method, nongraded schools, and open education owe a debt to the activity curriculum. Nevertheless, the activity curriculum lost popularity and died out as a viable organizational pattern for the public elementary school. There are a number of reasons for its demise.

With the activity curriculum the needs of society and the needs of the adult world took a back seat to the needs of immature youngsters. Progressive—that is, activity-oriented schools—projected an unfavorable image to the public who felt that subject-matter learning was being neglected and too much stress was being placed on the immediate interests of immature learners.

Excesses on the part of some progressive schools led to cynical jokes, such as the one in which the teacher asks, “Is the earth round or flat?” and the pupil answers, “I don’t know; let’s vote on it.” Then there is the classic put-down of the progressive school: The teacher enters the room in the morning and asks the class, “O.K., kids, what do you want to learn today?” and the children complain, “Do we have to do what we want to do today?”

It was not commonly understood that teachers of the activity curriculum had to be more knowledgeable and *better* trained not only in subject matter but also in techniques of guiding learning. The activity curriculum also required for its success resources and facilities that exceeded those of the typical elementary school. Further, more flexible administrators and teachers were needed for successful operation of a program of this type. The secondary schools also complained when they received students, products of the activity curriculum, who had a great range of knowledge and skills but glaring gaps in their education.

The Nongraded Elementary School

The nongraded elementary school, following plans that permit continuous progress, evolved as an alternative to the graded school. The nongraded or continuous progress school was a reaction to increasing rigidity of the graded school, which was an innovation designed to provide a more efficient education for children.

Persons unfamiliar with the concept of the nongraded school are sometimes confused by the term and interpret it to signify a school without a formal marking system. When we speak of the nongraded school, we refer to schools that have abandoned grade-level designations rather than marks.

In a nongraded school, typical grade levels and standards for those levels are absent. Children are grouped for instruction according to their particular needs and progress through the program at their own speed. Effort is made to individualize—some say “personalize”—instruction. The nongraded concept has made its greatest headway at the elementary school level. However, as we shall see when we discuss developments in secondary education later in this chapter, nongradedness is possible in the high school as well.

John I. Goodlad and Robert H. Anderson, proponents of the nongraded elementary school, saw nongradedness as a reaction to the Procrustean bed of the graded school.⁵ “The realities of child development defy the rigorous ordering of children’s abilities and attainments into conventional graded structures,” observed Goodlad and Anderson.⁶

Herbert I. Von Haden and Jean Marie King explained some of the principles underlying the nongraded school in the following way:

Nongrading is a philosophy of teaching and learning which recognizes that children learn at different rates and in different ways and allows them to progress as individuals rather than as classes. Such designations as grade one and grade three are eliminated. Flexible groupings allow the pupil to proceed from one level of work to another whenever he is ready. Thus, the children's progress is not dependent upon that of others in the room. His own readiness, interest, and capacity set the pace for each pupil. . . . Flexible grouping permits each child to move ahead with other children of approximately the same level of ability. Groupings are different for each subject area and can be changed at any time. Failure, retention, and skipping of grades are replaced by continuous progress as the pupil proceeds at his own rate. Slower children are not forced to go on with the class group before they are ready. Faster workers are not compelled to wait for the others. Individualization and continuous progress are the key elements of nongrading.⁷

Growth of Nongraded Schools. The nongraded movement began in earnest in the 1930s, grew in intensity through the 1940s and 1950s, and leveled off in the 1960s. Among the nongraded schools of the 1930s and 1940s were those in Western Springs, Illinois; Richmond, Virginia; Athens, Georgia; Youngstown, Ohio; and Milwaukee, Wisconsin.⁸ In the 1950s and 1960s nongraded schools were started in Bellevue, Washington; Appleton, Wisconsin; Chicago, Illinois; and Southern Humboldt Unified School District, California.⁹

School personnel of Appleton, Wisconsin, compared the graded school with the continuous progress school, as shown in Table 9.3. The nongraded school seeks to eliminate failures and retention by permitting children to proceed through the program at their own pace. Programs of the nongraded school are organized primarily around reading levels and to a lesser extent around mathematics levels rather than around the traditional chronological age-grade levels.

Reading is used as the nucleus for grouping of youngsters in the nongraded school. Maurie H. Hillson explained:

The present-day nongraded elementary schools, for the most part, rely on levels of accomplishment in reading as the bases for advancement and assignment in a program of vertical progression through the six years of the elementary school organization. Current nongraded plans, with some rare but exciting departures, accept the format of an attempted homogeneous grouping based on factors attendant to reading achievement.¹⁰

To form reading groups instructors pay attention to many factors, including intelligence, achievement, motivation, readiness, and maturity. Hillson elaborated on the salient features of nongraded plans:

Briefly, then, many of the present nongraded schools are ones in which grades are replaced by levels which a child accomplishes at his own speed. No grade designators are used. These levels of experiences are clearly described and without the fear of retention or, conversely, without the fear of encroachment upon material reserved for a next higher grade, the child progresses through them as a competency is achieved. . . . The rapid learner may accomplish a three-year nongraded program in two years. . . . The slow learner may take four years to accomplish three.¹¹

TABLE 9.3 Comparison of the Graded and Continuous Progress Schools

Graded Structure	Continuous Progress
<ol style="list-style-type: none"> 1. It is assumed that all children of the same chronological age will develop to the same extent in a given period of time. 2. A child who does not measure up to certain predetermined standards of what should be accomplished in nine months is called a failure. 3. If a child fails, he is required to repeat the grade in which he did not meet the standards. 4. A decision as to grade placement must be made after each nine months. 5. Grade placements are based too largely upon academic achievement. 6. Fixed standards of achievement within a set time put pressures upon teachers and children which cause emotional tensions and inhibit learning. 	<ol style="list-style-type: none"> 1. It is assumed that each child has his own pattern and rate of growth and that children of the same age will vary greatly in their ability and rate of growth. 2. No child is ever considered a failure. If he does not achieve in proportion to his ability, we study the cause and adjust his program to fit his needs and problems. 3. A child never repeats. He may progress more slowly than others in the group, but individual records of progress make it possible to keep his growth continuous. 4. Decisions as to group placement can be made at any time during the three-year period (for social or emotional adjustment, an additional year if needed, etc.). 5. Group placement is flexible, based upon physical, mental, social, and emotional maturity. 6. Elimination of pressures produces a relaxed learning situation conducive to good mental health.

Source: Royce E. Kurtz and James N. Reston, "Continuous Progress in Appleton, Wisconsin," in David W. Beggs III, and Edward G. Buffie, eds., *Nongraded Schools in Action: Bold New Venture* (Bloomington: Indiana University Press, 1967), p. 139. Reprinted by permission.

Problems Encountered. Nongraded plans encountered problems that led to a tapering off in their popularity. Nongraded programs are much more complex than the traditional, graded organization. They require continuous flexibility, more time by the faculty, greater resources, and a style of teaching different from that in typical graded schools. Careful diagnosis must be made of the learners' needs.

Nongraded schools could become as inflexible as the graded school if teachers and administrators merely substituted reading levels for chronological grades. Continuous progress plans concentrated to a great degree on reading and to a much lesser degree on mathematics, generally leaving the other subjects in the curriculum much as they were before—traditionally organized without well-planned sequencing of levels.

Nongraded plans excelled in vertical organization of the reading curriculum and sometimes the mathematics curriculum but failed to work out relationships at any level among the various disciplines. Further, the transition from a continuous progress elementary school to a graded junior high school could be rather abrupt for the learners when the junior high school was less concerned with personalized learning.

Advocacy of the nongraded elementary school continued in the publication of the revised edition of Goodlad and Anderson (1987) and in a more recent work by Anderson and Barbara Nelson Pavan (1993).¹² Contending that “views now in ascendance are far more compatible with nongradedness, and the prospects for its implementation are therefore much better,” Anderson and Pavan commented, “the time is at last ripe for a serious onslaught on literally graded practice.”¹³

Open Education and Open Space

Several years ago the hypothetical elementary school created at the beginning of this chapter caught on to the tail end of a movement known as the open-space school. The interior walls between classrooms came tumbling down—or as many walls as possible in a building constructed as a graded school many years ago. The purpose in eliminating barriers between classes was to permit innovative approaches such as flexible grouping, individualized instruction, nongradedness, or, simply, the open school. In practice, the terms are often interchanged. An *open classroom*, for example, might signal a classroom operated according to principles of *open education*. At the same time, this classroom *might* be an *open area*, although, paradoxically, open space is not a prerequisite to open education. An *open school* might be a school that implements the open-education concept, or it might be an open-space school in which all classrooms are without walls.

C. M. Charles and others commented: “Many people think that open space and open education are synonymous. They are not. In fact they can be (but don’t have to be) quite opposite.”¹⁴ Charles and others defined an open school not as an open-space school but as a school with several classrooms following principles of open education.¹⁵ Open-space schools normally subscribe to at least some of the principles of open education, whereas open schools, as defined by Charles and coauthors, may or may not be open-space schools.

In the ensuing discussion I will use the terms “open school,” “open classroom,” and “open education” when speaking of the broad concept and “open space” or “open area” when talking about the architectural arrangement of classrooms without walls.¹⁶

Imported from Great Britain, the open-classroom concept was designed as a curriculum and organizational response to formal, traditional schools. Charles and others briefly described open education as follows:

Open education refers to organizations and management that allow much student choice and self-direction. The teacher helps, but dominates neither the planning nor the learning activities. Instead, the teacher “facilitates” student learning. This facilitation is done through talking, exploring, suggesting options, helping find resources, and deciding on ways of working that suit the group. Emphasis falls continually on maintaining relationships, interacting positively with others, fostering a sense of personal and group worth, and providing for the development of individual potential.¹⁷

Louis Rubin described the philosophical basis for the open classroom as follows:

The basic ideology is rooted in the notion that children have a natural interest and desire in learning. Thus, when there is a conducive environment, and when the learning

structure does not inhibit individuality, good education invariably will occur. What we have come to call relevance, as a result, is built into the fundamental philosophy itself; the curriculum, in short, is derived almost entirely from student interests and needs.¹⁸

Rubin went on to contrast the traditional and open classrooms:

The critical distinctions between open and traditional education are that the goals are different, their means of attainment vary, and different outputs are yielded by each. A traditional program, for example, requires that a prescribed course of study be followed, leaving little leeway for accommodation to individual student interests. Its chief virtue, therefore, is that we can determine in advance, to a very sizable extent, what the child will and will not learn. But in the open education climate precisely the opposite condition prevails; since the child's own intellectual interests serve as the educational point of departure, predetermined objectives must defer to individual whim and specified learning outcomes cannot be guaranteed.¹⁹

Common sights in the open-area schools are large expanses of classroom space, groups of a hundred or more pupils spread out and engaged in a variety of activities at many stations within the areas, and teams of teachers working with individuals, small groups, and large groups of learners.

Beliefs Underlying Open-Space Schools. Proponents of the open classroom stress active learning and the affective domain. "The primary advantage of open space," said John H. Proctor and Kathryn Smith, "is the increased communication and interaction of teacher to teacher, teacher to student, and student to student."²⁰ Significant features of the open-space concept are the flexibility of grouping and the use of concrete materials that appeal to the interests and maturity level of the learners. Whereas many open elementary schools were organized into clusters or teams of a single grade level (e.g., first grade), others were nongraded and organized into multiunits.

The open-education/open-space movements crested in the early 1980s and have since dwindled to the point where they are almost nonexistent. Schools that removed walls for an open-area model have reinstalled walls or partitions to recreate small, self-contained units. What happened to this seemingly promising movement in the short space of approximately a decade?

David Pratt offered one reason for difficulties incurred by the open-space school:

The attempts to transplant the architectural aspect (of open-area schools in England) to North America has not been universally successful. Frequently, the innovation consisted of building schools with fewer interior walls, an environment into which teachers were introduced who had neither participated in, approved of, or been trained for the open environment. Continuing to teach in a conventional way, they found the absence of walls merely an audible and visible distraction. Bookcases, screens, and miniature palm trees were quickly turned into makeshift barriers between the teaching areas. Small wonder that the research evidence shows, at best, disappointing performance by students in open classrooms, not only in academic subjects but also in creativity, and an increased anxiety level.²¹

The audible and visual distractions have been, in my judgment, erroneously minimized. Visits to open classrooms rather consistently reveal a noise level that is not conducive to learning. Harried teachers must constantly elevate their voices to make themselves understood. When ardent proponents of the open classroom are questioned about the noise, their responses are often: "What noise?" or "Some noise is necessary for learning to take place." Perhaps we can attribute some of the fault for these distractions to the lack of fit between program and architecture.

Rubin pointed out that, contrary to the claims of some advocates of open education, traditional education is not necessarily as bad as some people painted it:

In fairness, it must be acknowledged that the proponents of open education have sometimes built their case upon a straw man. Traditional education—although formalized and structured—need not be depressing nor debilitating of the learner's spirit. In point of fact, there is abundant reason to believe that some learners thrive better in a traditional setting than in an open one. To wit, children sometimes find a lack of structure uncomfortable and large doses of freedom anxiety provoking. Similarly, provisions for the affective components of education, for the emotional feelings of students, can be made in both a traditional and an open format. As a result, one cannot in good conscience claim that an unstructured, open curriculum is necessarily more "humanistic" than a structured, traditional one.

Nor, to extend the point further, can one claim that an open curriculum automatically teaches the child to think more than a traditional one, or that multiage grouping cannot exist in either situation, or that prescribed programs of instruction must, inevitably, prohibit individualization. Put another way, a large number of benefits habitually claimed by champions of one approach or the other can, in reality, be used with equal effectiveness in both.²²

In regard to the success of open-space and open-education plans, Charles and coauthors observed: "In many cases, open space has not produced the results that were hoped for. . . . There is little evidence, however, to support open education on the grounds of academic achievement."²³

THE JUNIOR HIGH SCHOOL

The School In-Between

Educators and behavioral scientists of the late nineteenth century and early twentieth century recognized the necessity for a type of educational program and institution that would provide special attention to the needs of youngsters between childhood and adolescence. Out of this concern grew the junior high school. From its inception the junior high school was an institution in search of an identity. The early junior high schools encompassed grades seven, eight, and nine. Prior to the separation of these grades to form their own institution, grades seven and eight were normally considered an integral part of the elementary school; grades nine through twelve formed the secondary school. Early schools, if they did not house all grades in one classroom, grouped their pupils in self-contained seventh- and eighth-grade classrooms. Not until the advent of the junior high as an institution did departmentalization come to the schooling of the twelve- to fourteen-year-olds.

With the appearance of the junior high school, children entering adolescence found an institution created specifically for them. It bore the trappings of both the primary school below it and the secondary school above it. Offering both a basic general education and exploratory experiences, the junior high school spread rapidly through the first half of the twentieth century. School systems adopted either the seven-eight-nine pattern or a seven-eight model that maintained the ninth grade in the senior high school.

Educators' perceptions of the role of the junior high school have varied considerably. Is it an upward projection of the elementary school? Is it a downward extension of the senior high school? Is its purpose mainly exploratory, serving learners in a transition period between puberty and adolescence, or is it a preparatory school for the senior high? Should it be housed in the same building with the senior high school or located in a separate building?

In spite of varying perceptions of its role the junior high school serves as an example of the self-fulfilling prophecy. Established as a unique institution, the junior high school began to live up to its label "junior high." The junior high school quickly came to be identified as a part of secondary education, resulting in the kindergarten-six, seven-twelve dichotomy that to some extent still exists. Although at first it was somewhat experimental in nature with block-time scheduling and core curricula, as the years rolled by the junior high school became more and more like its higher-level companion with complete departmentalization of courses, senior-high scheduling patterns, and a subject matter curriculum.

Conant's Recommendations. In Chapter 6 we mentioned the studies of the junior and senior high school conducted by James B. Conant. Since Conant's recommendations were so favorably received, we should be remiss not to examine some and to discern their nature. Among Conant's fourteen recommendations for the junior high school were the following:

Required Subjects for All Pupils in Grades 7 and 8

The following subjects should be required of all pupils in grades 7 and 8: English (including heavy emphasis on reading skills and composition), social studies (including emphasis on history and geography), mathematics (arithmetic except as noted . . .) and science.

In addition, all pupils should receive instruction in home economics and all boys instruction in industrial arts. . . .

New Developments in Mathematics and Foreign Languages

A small fraction of pupils should start algebra (or one of the new brands of mathematics) in grade 8. Some, if not all, pupils should start the study of a foreign language on a conversational basis with a bilingual teacher in grade 7.

Basic Skills

Instruction in the basic skills begun in the elementary school should be continued as long as pupils can gain from the instruction. This statement applies particularly to reading and arithmetic. Pupils with average ability should read at or above grade level; superior pupils considerably above grade level. By the end of grade 9 even the poorest readers (except the mentally retarded) should read at least at the sixth-grade level.

Block-Time and Departmentalization

Provisions should be made to assure a smooth transition for the young adolescent from the elementary to the secondary school. . . . there should be a block of time set aside at least in grade 7, in which one teacher has the same pupils for two or more periods, generally in English and social studies. Otherwise, grades 7, 8, and 9 should be departmentalized. . . .²⁴

Many schools reviewed, reaffirmed, or modified their curricula in light of the Conant recommendations, and our hypothetical junior high school was no exception.

ASCD Proposals. At about the same time Conant was recommending increased emphasis on the academics, the Commission on the Education of Adolescents of the Association for Supervision and Curriculum Development (ASCD) was presenting a different point of view on the function and programs of the junior high school. Writing for the ASCD, Jean D. Grambs and others, acknowledging that the junior high school was under pressure, advocated variations in lengths of class periods, programs planned explicitly for the junior high school years, ungraded programs, and a block-of-time program offered each year for three years of junior high school.²⁵ As we will see, a block-of-time program usually runs for two to three hours of a school day.

Whereas Conant's proposals for the school in the middle were more subject-centered, the ASCD proposals were more learner-centered. However, proponents of both points of view agreed on the necessity for adequate facilities and resources, a professionally trained staff, a moderate and manageable size of school, and ample guidance.

The Core Curriculum

Basic education, common learnings, core curriculum, and general education are terms, like goals and objectives, that are tossed about rather loosely in the profession. These terms are used by educators to describe programs that are almost at opposite poles. To some, basic education, common learnings, and general education signal a set of courses or subjects that are required of all students—the earmark of the subject matter curriculum, grounded in essentialistic philosophy. In this vein, the Harvard Committee toward the end of World War II stated its interpretation of general education:

Clearly, general education has somewhat the meaning of liberal education [p. 52]. . . . General education, we repeat, must consciously aim at these abilities: at effective thinking, communication, the making of relevant judgments, and the discrimination of values [p. 72]. . . . It therefore remains only to draw the scheme of general education that follows from these premises. At the center of it . . . would be the three inevitable areas of man's life and knowledge . . . : the physical world, man's corporate life, his inner visions and standards [p. 98]. . . . In school, in our opinion, general education in these three areas should form a continuing core for all, taking up at least half of a student's time [p. 99]. . . . Accepting the course-unit system as established at least for the present, despite its grave weaknesses dwelt on earlier, that would amount to some eight units, preferably spaced by means of half-courses over the four years of school rather than compressed into two or three. The common and desirable divisions within these eight units would probably be three in English, three in science and mathematics, and two in the social studies. But—and this is the important point—this half

of the schoolwork to be spent on general education would seem the barest minimum, either for those not going on to college or for those who are [p. 100].²⁶

James B. Conant, president of Harvard University at the time the Harvard Committee issued its report, took a similar position when he recommended general education programs consisting of required courses at both the junior and senior high school levels. In keeping with the spirit of the 1894 Report of the Committee of Ten, the 1945 Report of the Harvard Committee, and several national reports of the 1980s, high schools today designate a “core” or set of required subjects for graduation. However, in the section which follows I have used the terms “core” and “core curriculum” to describe a unique organizational structure in the secondary school, not required courses.

The essentialists championed—and still advocate—the set of required courses as their model for general education in the high school. At the other end of the spectrum, from the camps of the pragmatic and reconstructionist philosophers, come those who hold a quite different conception of general education. They frequently refer to their plans for common learnings or general education as a “core curriculum.” Unlike the “continuing core for all” recommended by the Harvard Committee, the core curriculum at its inception was a radically new departure in curriculum organization. John H. Lounsbury and Gordon F. Vars noted that many curriculum specialists regarded core as a truly innovative development.²⁷

What is the core curriculum? Lounsbury and Vars defined “core”—short for “core curriculum”—as follows: “Specifically, core is a form of curriculum organization, usually operating within an extended block of time in the daily schedule, in which learning experiences are focused directly on problems of significance to students.”²⁸

Unification of Subject Matter. The core curriculum gained momentum in the 1930s and 1940s, but its roots go back to the nineteenth century. In a presentation made by Emerson E. White to the National Department of Superintendents in 1896, White discussed one of the basic principles of core: the unification of subject matter.

Complete unification is the blending of all subjects and branches of study into one whole, and the teaching of the same in successive groups or lessons or sections. When this union is effected by making one group or branch of study in the course the center or core, and subordinating all other subjects to it, the process is properly called the concentration of studies.²⁹

Smith, Stanley, and Shores credited Ziller, founder of the Herbartian school at the University of Leipzig, and Colonel Francis W. Parker, superintendent of schools, Quincy, Massachusetts, in 1875 and later principal of the Cook County (Chicago) Normal School, as proponents of the principle of unification of subject matter.³⁰

The core concept received a significant boost in the 1930s when the curriculum committees of a number of states sought to plan a curriculum around social functions of living and turned for assistance to Hollis L. Caswell, then of George Peabody College for Teachers and later of Teachers College, Columbia University. The Virginia State Curriculum Program pioneered in establishing the core curriculum—the content of which centered on societal functions.³¹

The core curriculum is in philosophy and intent the secondary school counterpart of the activity curriculum of the elementary school. Espoused as a concept for both the junior and senior high schools, the core curriculum made its greatest inroads at the junior high school level. The core concept was especially popular in the state of Maryland. However, Lounsbury and Vars pointed out that core, like many programs that are different, did not meet with universal acceptance even at the junior high school level.³²

Characteristics of Core. Although varying in structure and focus, core curricula, as described in this chapter, possess the following characteristics:

1. They constitute a portion of the curriculum that is required for all students.
2. They integrate, unify, or fuse subject matter, usually English and social studies.
3. Their content centers on problems that cut across the disciplines.
4. The primary method of learning is problem solving, using all applicable subject matter.
5. They are organized into blocks of time, usually two to three periods under a "core" teacher (with possible use of additional teachers and others as resource persons).
6. They encourage teachers to plan with students.
7. They provide pupil guidance.

Types of Core. Harold B. Albery and Elsie J. Albery distinguished five types of core.³³ The first two are core in the sense that subjects are required of all; as such these two types fall into the classification of the subject-matter curriculum. Writing in 1962, Albery and Albery classified types of core as follows:

- Type 1: A set of subjects ("constants") is required for all students. Subjects are taught separately with little or no effort to relate them to each other. This type of organizational plan is predominant in high schools today.
- Type 2: Two or more subjects are correlated. Although subjects remain discrete and are taught separately, effort is made to relate one to the other. The history teacher, for example, may work with the English teacher to show students relationships between topics that they happen to be studying in the two courses.
- Type 3: Two or more subjects are fused. The majority of core programs in schools fall into this classification. English and social studies are fused or integrated and scheduled in a block of time, usually two to three periods. Not a complete departure from traditional subject matter organization, this type of core organizes content around contemporary social problems or around historic or cultural epochs. Several experimental schools of the Eight-Year Study of the Progressive Education Association used Types 2 and 3 cores.³⁴
- Type 4: A block of time is established to study adolescent and/or social problems, such as school living, family life, economic problems, communication, multicultural relationships, health, international problems, conservation, and understanding the self. This type of core requires a complete departure from the typical subject matter curriculum and a thorough reorganization of the curriculum.

- Type 5: Learning activities are developed cooperatively by teachers and students, who are free to pursue whatever interests or problem areas they desire. This core program resembles the unstructured experience curriculum of the elementary school.

Core curricula tend to consume a block of time consisting of two to three periods of the school day. The remaining periods are devoted to specialized interests of students. "Block-time classes" is a term sometimes equated with "core." However, block-time classes may or may not be core classes.³⁵

Reporting in 1958 on a survey of block-time classes and core programs in junior high schools, Grace S. Wright listed four types of programs in block-time classes as follows:

Type A—Each subject retains its identity in the block-time class, that is separate subjects are taught (1) with consciously planned correlation, (2) with no planned correlation.

Type B—Subjects included in the block-time class are unified or fused around a central theme or units of work or problems stemming from one or more of the subject fields in the block-time class.

Type C—Predetermined problem areas based upon the personal-social needs of adolescents—both needs that adolescents themselves have identified and needs as society sees them—determine the scope of the core program. Subject matter is brought in as needed in working on the problems. Pupils may or may not have a choice from among several of these problem areas; they will, however, have some responsibility for suggesting and choosing activities in developing units of study.

Type D—The scope of the core program is not predetermined. Pupils and teacher are free to select the problems upon which they wish to work. Subject matter content is brought in as needed to develop or to help solve the problems.³⁶

Note the points of agreement between the Wright and the Albery and Albery classifications.

Organizational plans for a core curriculum limit blocks of time typically to a double-period throughout the junior high level or, if carried into the senior high level, decreasing blocks of time as pupils move from junior through senior high school levels.³⁷

Core programs have never been fully understood by the public. "What is core?" asks the average citizen. What does an "A" in core mean to parents and to college admissions officers? Informed persons will admit that the ripples caused by the Eight-Year Study, which allowed for innovative plans like the core, generally lost their force, and colleges went back to demanding high school credit in subjects they understood.

Core teaching is a demanding task requiring skills that take special training. Teachers' colleges, by and large, neglected the preparation of core teachers. The perceived threat from the Soviet Union in 1957 renewed demand for the "hard" subjects—science, mathematics, and foreign languages—and brought about negative reactions to unusual programs like core.

Conant was less than enthusiastic about the core. Even for the block of time that he recommended for seventh grade, he held that teachers need not break down subject-matter lines.³⁸

Daniel Tanner and Laurel Tanner observed that “The core idea never gained the widespread acceptance that was expected of it by progressive educators.”³⁹

Although core programs had largely disappeared from the scene, in recent years we have witnessed renewed interest in core-type programs. We find proposals for “integrating the curriculum” and plans in operation which emulate some of the earlier efforts at core: theme-centered instruction, block-time organization, and interdisciplinary teams.⁴⁰ Washington, D.C., public schools, for example, in 2003 were offering interdisciplinary, co-taught high school English and history courses that combined study of a period of literature with its history. Though proposals for integrated and interdisciplinary curricula are made for all levels, they are particularly in evidence at the middle school level.

Referring to an integrated curriculum with thematic units and identifying the middle school as the “natural home of integrated curriculum,” James Beane named Cross Keys Middle School (Florissant, Missouri) and Marquette Middle School (Madison, Wisconsin) as examples of schools implementing what he called the “new curriculum vision.”⁴¹

Gordon F. Vars pointed out that “the popularity of core-type integrative programs waxes and wanes from year to year, as education shifts primary attention from student concerns to subject matter acquisition to social problems and back again.”⁴² Continuing and renewed interest in the concept of the core curriculum is seen today in the numerous articles advocating integration of the curriculum and interdisciplinary learning.

In the mid- and late twentieth century, the junior high school underwent a metamorphosis, developing into a new institution designed to better meet the needs of the pre-adolescent. This innovative concept, the middle school, is discussed later in this chapter.

THE SENIOR HIGH SCHOOL

The Subject Matter Curriculum

The subject matter curriculum has been the most prevalent form of curriculum organization at all levels of American education ever since the Boston Latin School, the first Latin Grammar School in the United States, opened in 1635. The subject matter curriculum remains the most common pattern of organization throughout most of the world. Although other forms of curriculum organization have asserted themselves in the United States from time to time, the subject matter curriculum has continued strong and has gained strength in recent years with the emphasis placed on the academics and basic skills. The subject matter curriculum has existed at all levels of schooling but has been particularly entrenched at the senior high and college levels.

Smith, Stanley, and Shores pointed out that the subject matter curriculum, derived from the Seven Liberal Arts that trace their roots to ancient Greece and Rome and the Middle Ages, is the oldest and most accepted plan for organizing the curriculum. They explained:

The Seven Liberal Arts consisted of two divisions: the trivium, which was comprised of grammar, rhetoric, and dialectic (logic); and the quadrivium, which consisted of arithmetic,

geometry, astronomy, and music. . . . In the modern period the trivium was further divided to include literature and history as distinct subjects; and the quadrivium, to include algebra, trigonometry, geography, botany, zoology, physics, and chemistry . . . the Seven Liberal Arts are still the nucleus of the subject curriculum, as a casual survey of required courses will reveal.⁴³

As the name implies, the subject matter curriculum is an organizational pattern that breaks the school's program into discrete subjects or disciplines. The seventeenth century Latin Grammar School stressed classical subjects, including Greek, Latin, Hebrew, mathematics, history, and the Bible. Notably absent from this early school were English and science, which were considered too functional or too frivolous for scholars of this period. With the opening of Benjamin Franklin's Academy and Charitable School in 1751, English, science, and modern languages were added to the curriculum. Today's secondary schools offer a potpourri—some say smorgasbord—of courses.

Essentialistic in outlook, the subject matter curriculum seeks to transmit the cultural heritage. The subjects or disciplines organize knowledge from the adult world in such a way that it can be transmitted to the immature learner.

As we saw in Chapter 6 when we discussed the philosophy of essentialism, the subject matter curriculum has not been at a loss for spokespersons. Max Rafferty left no doubt of his position regarding the subject matter curriculum when he said, "What is significant for the children—what the people want for their children and mean to get—is subject matter that is systematic, organized, and disciplined and that is taught effectively and interestingly as subject matter. . . . Stress subject matter, *all* subject matter."⁴⁴

At public school levels the subject matter curriculum has had its greatest impact at the secondary school level. Elementary and middle school faculties have been more prone to experiment and to try out new patterns of organization that depart from subject matter emphasis. Secondary school teachers and administrators have consistently tended to be more subject-centered than their counterparts at the elementary school level.

Advantages. The subject matter curriculum presents to its followers certain distinct advantages. It is the easiest organizational pattern to structure. On the elementary school level, it is simply a matter of allocating a certain number of minutes for each subject during the course of the day. On the secondary school level, subject matter is organized into "courses" that are designated as either required subjects or electives. Every subject of the secondary school is typically scheduled for the same amount of time. The recommendations of two well-known groups helped to imprint the model of equal time for each subject in the secondary school.

At the tail end of the nineteenth century the National Education Association's Committee of Ten proposed:

Every subject which is taught at all in a secondary school should be taught in the same way and to the same extent to every pupil so long as he pursues it, no matter what the probable destination of the pupil may be, or at what point his education is to cease. Thus, for all pupils who study Latin, or history, or algebra, for example, the allotment of time and the method of instruction in a given school should be the same year by year. Not that

all pupils should pursue every subject for the same number of years, but so long as they do pursue it, they should all be treated alike.⁴⁵

A few years later, in 1906, the Carnegie Foundation for the Advancement of Teaching created the Carnegie unit, which for purposes of college admission standardized the amount of time to be spent in each subject in high school. To most people today the concept is known simply as a “unit,” the Carnegie modifier having been lost over time. The Carnegie Foundation for the Advancement of Teaching defined a unit as satisfactory completion of a subject that met five days per week, a minimum of forty minutes per period, and a minimum of 120 clock hours for the school year. In addition, the Carnegie Foundation stipulated that a secondary school pupil should amass a total of sixteen units for graduation. These two recommendations were universally adopted by American secondary schools and have continued in force with infrequent modifications up to the present. In today’s educational environment, states have moved well past the Carnegie Foundation’s recommendation of sixteen units for high school graduation, as we shall see later in this chapter.

The content of the subject matter curriculum, unlike that of the experience curriculum, is planned in advance by the teacher or, more accurately, by the writers of the textbooks or curriculum guides that the teacher follows. The needs and interests of learners play little part in the curriculum that is organized around disciplines.

Unlike the activity or experience curriculum and the core curriculum discussed earlier in this chapter, the subject matter curriculum is well understood by the public, students, and the profession and for the most part has met with general favor. The methodology followed in the subject matter curriculum is rather straightforward. The teacher is the expert in the field and is likely to pursue a set of procedures that some instructional specialists refer to as the “assign-study-recite-test” method. William H. Burton succinctly described these procedures:

The learning situation is organized around materials and experiences which are assigned by the teacher. The pupils then study in various ways. The results of their studying are presented and shared during a recitation period. Testing of results occurs at the conclusion of a series of assignments and may occur at stated times within the sequence.⁴⁶

Writing in 1962, Burton stated, “The assign-study-recite-test formula will be used for many years to come.”⁴⁷ What he might have said is that the assign-study-recite-test formula has been used for generations and is likely to continue for generations to come. This approach is what many people both within and without the profession call “teaching.”

Cognitive Emphasis. The subject matter curriculum, which in days of old was imbedded in faculty psychology or mental discipline, has found behavioristic psychology compatible with its objectives. Student achievement is rather easily assessed, since evaluation is limited to measuring cognitive objectives by teacher-made or standardized tests. Some effort is made to measure performance in the psychomotor domain, but the perceptual motor skills are treated more or less as appendages to the cognitive domain. For example, in high schools that have separate tracks of curricula—such as general, commercial,

industrial, and college preparatory—the most cognitive, the college preparatory track, is usually regarded as the most prestigious.

In the subject matter curriculum little effort is made to gauge student performance in the affective domain. Not only is evaluation of feelings and values extremely difficult, but also proponents of the subject matter curriculum, essentialists as they are, do not accept the affective domain as a primary concern of the school. Robert L. Ebel expressed this position forcefully when he said:

Feelings are essentially unteachable. . . . Nor do they need to be taught. . . . The kind of learning on which schools should concentrate most of their efforts is cognitive competence. . . . Affective dispositions are important products of the human experience, but they seldom are or should be the principal targets of our educational efforts.⁴⁸

The approach to individual differences and needs of students in the subject matter curriculum lies more in the provision of elective or special interest subjects from among which the students may choose. The breadth or scope of the subject matter curriculum and its sequence are revealed in the textbooks that are adopted for use in the classroom.

Conant's Proposals. Conant's studies of both the American high and junior high schools strengthened advocates of the subject matter curriculum. So that you may sense the overall impact of the Conant report on the high school, which preceded the report on the junior high, let's look at several of his twenty-two recommendations.

One wonders if the titles of Conant's two reports have political significance as well as educational. His 1959 report on the high school was labeled "a first report to interested citizens," whereas his 1960 junior high school report was subtitled "a memorandum to school boards." Among Conant's proposals for the high school were the following:

Required Programs for All

A. General Education

The requirements for graduation for all students should be as follows: four years of English, three or four years of social studies—including two years of history (one of which should be American history) and a senior course in American problems or American government—one year of mathematics in the ninth grade (algebra or general mathematics), and at least one year of science in the ninth or tenth grade, which might well be biology or general physical science. By a year, I mean that a course is given five periods a week throughout the academic year or an equivalent amount of time. This academic program of general education involves nine or ten courses with homework to be taken in four years and occupies more than half the time of most students, whatever their elective programs.

B. The Elective Program

The other requirements for graduation should be successful completion of at least seven more courses, not including physical education. *All students should be urged to include art and music in their elective programs.* All students should be advised to have as the central core of their elective programs significant sequences of courses, either those leading to the development of a marketable skill or those of an academic nature.

C. Standards for Pass and Failure

The teachers of the advanced *elective* courses—foreign languages, mathematics, and science—should be urged to maintain high standards. They should be told not to hesitate to fail a student who does not meet the minimum level of performance they judge necessary for mastery of the subject in question. . . . On the other hand, for the *required* courses another standard should be applied. Since these courses are required of all, irrespective of ability, a student may be given a passing grade if he has worked to full capacity whether or not a certain level of achievement has been reached. . . .

Ability Grouping

In the required subjects and those elected by students with a wide range of ability, the students should be grouped according to ability, subject by subject. . . . This type of grouping is not to be confused with across-the-board grouping according to which a given student is placed in a particular section in *all* courses. . . .

English Composition

The time devoted to English composition during the four years should occupy about half the total time devoted to the study of English. Each student should be required to write an average of one theme a week. Themes should be corrected by the teacher. . . . No English teacher should be responsible for more than one hundred pupils.

To test the ability of each student in English composition, a schoolwide composition test should be given in every grade; in the ninth and eleventh grades, these composition tests should be graded not only by the teacher but by a committee of the entire school. Those students who do not obtain a grade on the eleventh-grade composition test commensurate with their ability as measured by an aptitude test should be required to take a special course in English composition in the twelfth grade. . . .

Diversified Programs for the Development of Marketable Skills

Programs should be available for girls interested in developing skills in typing, stenography, the use of clerical machines, home economics. . . . Distributive education should be available. . . . If the community is rural, vocational agriculture should be included. . . . For boys, depending on the community, trade and industrial programs should be available. Half a day is required in the eleventh and twelfth grades for this vocational work. . . .

Special Consideration for the Very Slow Readers

Those in the ninth grade of the school who read at a level of the sixth grade or below should be given special consideration. These pupils should be instructed in English and the required social studies by special teachers. . . . Remedial reading should be part of the work, and special types of textbooks should be provided. The elective programs of these pupils should be directed toward simple vocational work. . . .

The Programs of the Academically Talented

. . . the elective programs of academically talented boys and girls [the top 15 percent] should [include] . . . as a minimum:

Four years of mathematics, four years of one foreign language, three years of science, in addition to the required four years of English and three years of social studies, a total of eighteen courses with homework to be taken in four years. This program will require at least fifteen hours of homework each week. . . .

Highly Gifted Pupils

For the highly gifted pupils [the top 3 percent] some type of special arrangement should be made. . . . If enough students are available to provide a special class, these students should take in the twelfth grade one or more courses which are part of the Advanced Placement Program.

Organization of the School Day

The school day should be so organized that there are at least six periods in addition to the required physical education and driver education. . . . A seven- or eight-period day may be organized with periods as short as forty-five minutes. . . . Laboratory periods as well as industrial arts should involve double periods. . . .⁴⁹

The thrust of the Conant recommendations for the high school reaffirmed the subject matter curriculum and placed special emphasis on the needs of the academically talented. As such, albeit in more modern dress, it reinforced and expanded the Harvard Committee's report that had preceded it by almost fifteen years. Whereas many secondary schools rushed to implement some of Conant's recommendations, particularly those for the academically talented, they gave up on others. English teachers still wistfully hope for a maximum of one hundred pupils. School personnel still dream of a full-time counselor for every 250 to 300 pupils; the normal ratio is often one counselor to 500 or more. Conant's mid-twentieth century, gender-oriented recommendations for clerical studies and home economics for girls and trade and industrial programs for boys may well amuse us in the twenty-first century when girls enter occupations once considered the domain of boys, and vice versa. Finally, although the recommendation to group students by ability has been implemented widely in the past, its practice is generally frowned on today.

The subject matter curriculum has been popular with many curriculum planners because it lends itself well to a mechanical type of curriculum development: dropping, adding, or splitting courses, rearranging or extending sequences, updating topics, and changing textbooks. Current interest in integrating the curriculum at all levels, however, runs counter to separation of knowledge into discrete subjects. Deborah P. Britzman faulted the compartmentalization of knowledge into subjects saying:

Compartmentalization defines the limits of relevancy, it brackets our definitions of context and content, and imposes measures of credibility that determine what we accept and reject as true and as false.⁵⁰

A curriculum organized around separate subjects "is fragmented into instructional activities reduced to discrete blocks of time, thereby isolating subject areas and teachers, abstracting knowledge from its socio-cultural roots and political consequences, and decontextualizing knowledge and skills from their practical existence," said Britzman.⁵¹

Broad-Fields Curriculum

In the early part of the twentieth century a pattern of curriculum organization appeared that became—on the surface at least—a standard feature of both elementary and secondary schools. Called the broad-fields curriculum, this form of curriculum organization is a

modification of the strict subject matter curriculum. Effort is made to unify and integrate content of related disciplines around broad themes or principles. For example, history A (ancient), history B (modern), and history C (American), as existed in the secondary school curriculum of New York State schools well into the 1930s, were converted into broad fields and designated simply tenth-grade social studies, eleventh-grade social studies, and twelfth-grade social studies.

"In the broad fields approach," said Tanner and Tanner, "the attempt is made to develop some degree of synthesis or unity for an entire branch of knowledge. . . . The broad fields approach may also encompass two or more branches of knowledge."⁵² Smith, Stanley, and Shores noted that broad-fields courses possess varying names: survey, comprehensive, or general.⁵³

Thus, we find the various elements of English (reading, writing, grammar, literature, speech, etc.) brought together under the rubric of language arts. The various social science fields (history, political science, government, economics, anthropology, sociology, etc.) were combined to become the social studies. Art, music, architecture, and literature became the humanities. Principles of physical and natural science were unified into a course in general science. The industrial arts tied together various aspects of vocational education. Physical education included health and safety. General mathematics offered knowledge and skills drawn from arithmetic, algebra, and geometry.

Robert S. Zais spoke about the advantages of the broad-fields curriculum as follows:

Two main advantages are claimed for the broad-fields design. First, because it is ultimately based on the separate subjects, it provides for an orderly and systematic exposure to the cultural heritage. This advantage it shares with the subject curriculum. But it also integrates separate subjects, thereby enabling learners to see relationships among various elements in the curriculum. This second advantage is the special strength that the broad-fields design claims over the subject curriculum.⁵⁴

He warned, however, "With respect to the integration claimed for the broad-fields design, it is worth noting that in practice, combining subjects into a broad field often amounts to little more than the compression of several separate subjects into a single course with little actual unification taking place."⁵⁵

In a true broad-fields approach, teachers select certain general themes or principles to be studied at each year of the sequence of a discipline, such as social studies. Obviously, not all curricula labeled broad fields are truly of that genre.

Common criticisms of the broad-fields curriculum focus on its lack of depth as opposed to breadth, its lack of appeal to student needs and interests, and its emphasis on covering content, which excludes other important goals of education.⁵⁶

Proponents of the broad-fields curriculum would respond to these criticisms by saying that if the curriculum were properly planned and carried out, these deficiencies would be overcome. What appears to have happened in many schools is that the rubric of broad fields has been retained but the curricula themselves have reverted to the separate disciplines of the subject matter curriculum.

The majority of boys and girls in American schools, both elementary and secondary, have been and continue to be educated under some form of the subject matter

curriculum. Admittedly, some modifications have been made, but by and large the subject matter curriculum has proved to be a comfortable plan that is widely accepted in the American culture. The subject matter curriculum at the senior high school level has been favored by college admissions officers and regional accrediting associations, for it is much easier to understand and evaluate than more experimental types of curricula. We must also add that the subject matter curriculum has met with considerable success.

Team Teaching

While Conant was conducting his surveys of the American high and junior high schools, the National Association of Secondary School Principals (NASSP) in 1956 was seeking ways to cope with increased enrollments in the schools, a teacher shortage, and the introduction of new curricula in various disciplines. Under the leadership of J. Lloyd Trump, associate secretary of the NASSP, the Commission on Curriculum Planning and Development was launched to create a proposal for new ways of using staff through teaming of faculty.

Supported by the Ford Foundation's Fund for the Advancement of Education, team teaching enjoyed a brief flurry of popularity in secondary schools across the country from Newton, Massachusetts; to Evanston, Illinois; to San Diego, California. The NASSP proceeded to appoint the Commission on the Experimental Study of the Utilization of the Staff in the secondary school (with J. Lloyd Trump as its director) and to charge it with the task of promoting the cause of team teaching. Harvard University's Graduate School of Education and Claremont Graduate School (California) took a special interest in this innovative organizational plan.

J. Lloyd Trump and Delmas F. Miller defined team teaching as follows:

The term "team teaching" applies to an arrangement in which two or more teachers and their assistants, taking advantage of their respective competencies, plan, instruct, and evaluate in one or more subject areas a group of elementary or secondary students equivalent to two or more conventional classes, using a variety of technical aids to teaching and learning through large-group instruction, small-group instruction, and independent study.⁵⁷

Ira J. Singer described team teaching in this way:

Team teaching may be defined as an arrangement whereby two or more teachers, with or without teacher aides, cooperatively plan, instruct, and evaluate one or more class groups in an appropriate instructional space and given length of time, so as to take advantage of the special competencies of the team members.⁵⁸

Singer pointed out that the major factors in a team teaching plan are

- cooperative planning, instruction, and evaluation
- student grouping for special purposes (large group instruction, small group discussion, and independent study)
- flexible daily schedule
- use of teacher aides

- recognition and utilization of individual teacher talents
- use of space and media appropriate to the purpose and content of instruction⁵⁹

The purpose of team teaching was to capitalize on the strengths of teachers, using their varying expertise in different ways. Teams were organized within subject areas and across subject fields.

A particular variant of team teaching came to be known as the Trump Plan. J. Lloyd Trump and Dorsey Baynham postulated three ingredients for an effective organizational structure that would capitalize on teacher assets and provide better opportunities for the learners. The school week, according to Trump and Baynham, should provide opportunities for pupils to attend large-group instruction, to interact in small groups, and to carry out independent study. Prophesied Trump and Baynham:

The school of the future will schedule students in class groups an average of only 18 hours a week. The average student at the level of today's tenth grade will spend about 12 of the 18 hours in *large-group instruction and six in small-group discussion*.

In addition, students will spend, on the average, 12 hours each week in school in individual *independent study*.⁶⁰

These figures convert to forty percent of a student's time in large-group instruction, twenty percent in small-group discussion, and forty percent in independent study.

Differentiated Staffing. Team teaching offered a creative answer to the problem of using limited faculty and resources more effectively. More elaborate schoolwide staffing patterns were developed that incorporated the principle of differentiated assignment. In the early 1970s the North Miami Beach Senior High School (Florida), for example, developed a set of categories of personnel for its differentiated staffing plan. These included in addition to a principal, vice-principal, and business manager the following positions:

- *Community Relations Specialist.* Coordinates activities involving school and community.
- *Human Relations Specialist.* Seeks to create harmonious climate within the school.
- *Inservice Coordinator.* Coordinates the training and development program of the professional and paraprofessional staff.
- *Psychologist.* Counsels students on emotional problems.
- *School Social Worker.* Helps students to function adequately in school; a behavioral consultant.
- *Media Specialist.* Supervises and develops media program.
- *Media Technician.* Provides skilled technical assistance to staff and students.
- *Coordinating Librarian.* Supervises library resources.
- *Teaching Designer.* Assists teachers in improving instruction and evaluating effectiveness.
- *Teaching Prescriber.* Provides assessment, diagnosis, and prescription for each student's program through observation, testing, and individual and/or group conferences.

- *Resource Specialist.* Gathers, coordinates, and disseminates materials for helping solve specific learning situations.
- *Facilitating Teacher.* Guides students through learning; teaches specific courses.
- *Instructional Intern.* Assists a directing teacher, a college junior, senior, or graduate student who serves for a full school year in the high school.
- *Instructional Aide.* Assists by performing paraprofessional responsibilities.
- *Clerical Aide.* Performs clerical duties.⁶¹

In recent years secondary schools have turned away from the concepts of team teaching and differentiated staffing. However, team teaching has been a prominent aspect of plans for middle and open-space schools. Results were not always as anticipated. In some cases teachers found themselves incompatible, unable to cooperate effectively. Co-operative planning requires a high degree of interpersonal skill that some team members lacked.

Some administrators favored the large-group instruction aspect of team teaching for the convenience and economy of scheduling large numbers of students; they omitted the important companion features of small-group discussion and independent study. Large-group instruction by itself deprives students of interaction with the teacher and with each other. Large-group instruction, frequently coupled with instructional television, a strategy also attempted at this period, often resulted in students becoming inattentive and bored.

Schools experienced varying degrees of success with independent study. Plans for large-group instruction, small-group discussion, and independent study call for special facilities and resources that were missing in some schools that attempted this type of organization.

The very complexity of staffing and scheduling under team teaching patterns confused parents, teachers, and students. Tradition, therefore, caused them to prefer uniform blocks of time, completely supervised study, and individual assignments.

Flexible and Modular Scheduling

With but a few significant departures from traditional practice, high schools have continued to schedule subjects in the conventional mode, one period per day, five days per week. The Carnegie unit, Conant's recommendations that each course meet five times a week for the academic year, and customary standards of the regional accrediting associations have added to the pressure to maintain traditional scheduling.

However, it is difficult to find a logical reason why all subjects must be taught for the same period of time. Some disciplines are by their very nature more difficult to teach than others and require more time for mastery. Some courses are most effectively taught when accompanied by a laboratory that requires extra time. Some subject matter is simply not as relevant as other subject matter and, therefore, should be accorded less time.

Nor is there a logical reason why equal amounts of time must be allotted to every subject every day of the week. Some days and some weeks more time is needed to explore a topic in depth. Some days it is apparent to the teacher that youngsters have not comprehended the lesson and need to spend more time on it or undergo remedial work.

There is also not sufficient reason why the instructional mode must be standardized every period of every day. Variation should be possible for lecture, mediated instruction, laboratories, seminars, field trips, independent study, and other modes.

Efforts were made in the 1960s to break out of the mold of the standard schedule. These efforts are subsumed in a movement referred to as flexible scheduling. Donald C. Manlove and David W. Beggs III described the concept of flexible scheduling as follows:

The flexible schedule is an organization for instruction which:

1. calls for classes of varying size within and between courses. (Students sometimes may meet in large assembly classes, and at other times in small inquiry classes. In addition, part of the day will be spent in individual or independent study.)
2. provides for instructional groups which meet at varying frequencies for varying lengths. (Some classes may meet every day of the week, others will not. Some instructional sessions will be for a short duration, others for an extended period of time.)
3. makes team teaching possible in any content area or for any group of students in the school. (The use of a teaching team, two or more teachers working within a given group of students on a common instructional problem, is suggested in this model.)
4. requires countless professional decisions by teachers about students, content, and teaching methods.⁶²

Types of Schedules. Flexible schedules have taken varying forms; some are minor departures from traditional plans, others radical changes. Among the varieties of flexible scheduling are the following:

1. Two or more periods are simply combined, as in the case of core classes.
2. Subjects are scheduled for both double and single periods in the same week. For example, some classes may meet two periods on Monday and Thursday, other classes two periods on Tuesday and Friday, but all only one period on Wednesday. Teachers can thus use the larger blocks of time in ways not permitted by the constraints of the single-period schedule.
3. Classes are rotated during the week.
4. Instead of typical forty-five minute periods, the schedule is broken into modules, which, by faculty agreement, may be multiples of fifteen, twenty, thirty, or more minutes. In an earlier text I described modular scheduling as follows:

Modular scheduling, or flexible-modular scheduling, . . . requires complete abandonment of the division of the school schedule into equal amounts of time for each course. . . . Some subjects are scheduled for two or three modules (conceivably, even for a single module) per day. Those which require a great deal of time are scheduled in multiple modules. . . .

The duration of the module is purely a matter for decision, ordinarily made by the faculty of the school at the time a modular schedule is introduced. Fifteen-minute modules are common. A school day based on fifteen-minute modules would encompass approximately twenty-five modules. Schools which follow the Stanford School Scheduling System use modules of twenty-two minutes; twenty modules make up the day. The Indiana Flexible Schedule uses fifteen modules per day of thirty minutes each. Ridgewood High School, Norridge-Harwood Heights, Illinois (as one example) has a school day

made up of twenty modules of twenty minutes plus an additional ten-minute module for homeroom period.⁶³

5. Class schedules are set frequently, even daily. This “scheduling on demand” is the ultimate goal of flexible scheduling. As J. Lloyd Trump observed, it allows teachers and students the greatest possible latitude in determining their instruction and learning. Trump told how this process was accomplished at the Brookhurst Junior High School in Anaheim, California.

Individual members of teaching teams determine three days in advance what students they want to teach, in what size groups, for what length of time, in what places, and with what technological aids. Teacher job-specification forms containing this information are turned in to their team leaders. The team leaders then assemble to make a master schedule each day. The master schedule is then duplicated and made available to the students and their counselors. In a daily 20-minute meeting, with the advice and consent of their counselor (twenty minutes to a counselor), each student makes his schedule. A student noting, for example, that the schedule calls for large-group presentation on a given subject and deciding that he already knows that material, may elect rather to spend his time in independent study in the art room or library or some place else. The counselor either approves or rejects this decision. Then the student makes out his own schedule for the day in quadruplicate. One copy is for himself, one for the office, one for the counselor, and one for his parents.⁶⁴

Traditional versus Flexible Scheduling. Flexible scheduling is an essential aspect of plans for curriculum organization such as team teaching, which calls for large-group instruction, small-group discussion, and independent study. Traditional schedules have forced teachers to use the same amounts of time for all activities.

Manlove and Beggs contrasted the traditional and the flexible schedule in Table 9.4. They summarized the advantages and disadvantages of flexible scheduling to teachers, making the comparisons shown in Table 9.5.

Trump and Miller also warned of a danger inherent in modular scheduling—or in any innovation, for that matter—“once a change is made, the new schedule can become almost as rigid as the one it replaced.”⁶⁵ The complexity of operation; a structure that shifts from day to day; the high degree of planning required on the part of students, teachers, and administrators; and the decline in popularity of the team teaching concept have militated against flexible scheduling and caused some schools to return to more traditional and more commonly understood forms of scheduling.

The Nongraded High School

During the 1960s when the elementary schools were experimenting with continuous progress plans and eliminating grades as we know them, several high schools were attempting to develop ungraded patterns of organization. Prominent among these high schools were Nova High School (Broward County, Florida) and Melbourne High School (Brevard County, Florida).

In the mid-1960s Nova High School and Melbourne High School put into practice a number of innovations. Nova High School was established amid what was at that time

TABLE 9.4 Characteristics of Traditional and Flexible Schedules

Element	Traditional Schedule	Flexible Schedule
Content	Assumes each course is equivalent in requirements for mastery to all others	Assumes requirements for mastery of content vary from course to course
Facilities	Use is set by schedule	Use is determined sometimes by student needs
Groups	All class groups are nearly equal size	Class groups differ in size depending on instructional task
Scheduling unit	The day; each day in the week has the same order as every other day	The week; each day in the week has a different order
Students	Students should be in a class group or supervised study	Students may be in a class group or working independently
Teachers	All have equal numbers of classes or assignments and demands on their time	Number of classes varies from teacher to teacher and demands on time vary
Time	Usually equal for all subjects	Usually different for various subjects

Source: Donald C. Manlove and David W. Beggs III, *Flexible Scheduling: Bold New Venture* (Bloomington: Indiana University Press, 1965), p. 26. Reprinted by permission.

a semirural tract of land of now populous Broward County (Fort Lauderdale) as the first facility in a projected complex that eventually would include elementary schools, a junior high school, and a junior college as well as the high school—all publicly supported. A private institution of higher learning, Nova Southeastern University, is nearby.

TABLE 9.5 Advantages and Disadvantages of Flexible Scheduling

Advantages for Teachers	Disadvantages for Teachers
<ol style="list-style-type: none"> 1. Provides a mean for pacing the instruction to an individual student's needs 2. Allows teachers to make decisions about the length and frequency of learning activities 3. Gives teachers time to work with small groups and individuals 4. Takes unnecessary repetition out of the teacher's day 5. Places increased responsibility on students for learning 6. Provides the opportunity to use resource experts for a large group of students in an economical way for the resource person 	<ol style="list-style-type: none"> 1. Danger of not giving enough time to one subject 2. Requires more time and cooperative effort of teachers in making the schedule 3. Possibility of too little identification of a student with his teachers 4. Is difficult to schedule 5. Requires teachers to change their teaching patterns 6. Is not understood by the public or even by all teachers

Source: Donald C. Manlove and David W. Beggs III, *Flexible Scheduling: Bold New Venture* (Bloomington: Indiana University Press, 1965), p. 67. Reprinted by permission.

Nova High School made use of teaching teams complete with clerical assistants and teacher aides. Organized on a trimester plan, Nova High School incorporated closed circuit television, a photographic laboratory, data processing equipment, and learning resource centers equipped with tape recorders, microfilm readers, and teaching machines.

A daily schedule was devised that consisted of five periods of eighty minutes each and an optional sixth period of one hour's duration. Speaking about the nongraded feature of Nova High School, Arthur B. Wolfe, director of the K-12 Center at that time, set forth the Nova Plan in these terms:

The Nova Plan will eliminate grade designation and will establish a far wider range of learning levels through which each student may progress at a rate commensurate with his interests and abilities. Each of the established levels will be only slightly advanced over the level below, thereby enabling the student to move from one level to the next at any given time during the school year. This process will be applicable to the program of each student and to each separate subject area, thereby placing a realistic evaluation on each student's progress on an individual basis, one not entirely related to the sum total of his progress. . . .

Following the enrollment of new students, records will be examined and a series of tests will be administered. The faculty will place students in an achievement group that will provide a smooth transition to a new learning environment. This process will be followed for each of the subject areas in which students may be enrolled. It will be necessary in some cases to move students forward or back until an achievement level has been found in which they will feel comfortable.⁶⁶

Melbourne, like Nova, implemented some of the more significant innovations of the day. Situated in the stimulating setting of space-oriented Brevard County with Cape Canaveral practically in its backyard, Melbourne High School, under its principal at that time, B. Frank Brown, achieved considerable recognition for its emphasis on the academics as evidenced by its library with carrels, which resembled a college library, by its six foreign languages (including Russian and Chinese), and by its stress on independent study, particularly for the academically talented. Melbourne gained special attention, however, for its nongraded organizational plan. Melbourne grouped students not by ability as measured by tests of intelligence or scholastic aptitude but on the basis of achievement tests, subject by subject. A tenth-grade student, therefore, might be enrolled in Algebra I, Phase 2 and English II, Phase 3. Melbourne's schedule of course offerings described each of its seven phases:

- Phase 1: Subjects are designed for students who need special assistance in small classes.
- Phase 2: Subjects are designed for students who need more emphasis on the basic skills.
- Phase 3: Courses are designed for students who have an average background of achievement.
- Phase 4: Subject matter is designed for extremely well-prepared students desiring education in depth.
- Phase 5: Courses are available to students who are willing to assume responsibility for their own learning and pursue college level courses while still in high school.

- Phase Q: Students whose creative talents are well developed should give *consideration* to the Quest phase of the curriculum. This is an important dimension of the phased organization designed to give thrust in the direction of individual fulfillment. In this phase a student may research an area in which he is deeply and broadly curious either to develop creative powers or in quest of knowledge.
- Phase X: Subjects which do not accommodate student mobility; e.g., typing, physical education, are ungraded but unphased.⁶⁷

Brown referred to the ungraded concept at Melbourne High School not only as the nongraded school⁶⁸ but also the multiphased school⁶⁹ and gave particular attention to the independent study or quest phase of the program. He referred to the quest phase as both "Education by Appointment"⁷⁰ because students see their teachers by appointment in a tutorial fashion and "Education by Agreement" because he recommended that schools emulate the Dalton plan by drawing up an agreement form or contract specifying the independent study that a student plans to do.⁷¹

Although a noble experiment in curriculum reorganization, nongradedness has not reached the goal that Brown predicted—namely, that within a few years after its inception—"every intellectually respectable high school will have some degree of non-graded education."⁷²

Over the decades a number of curricular arrangements have been tried with varying degrees of success in both our hypothetical community and elsewhere. Some have been adopted; some modified; others abandoned. May we stop to wonder what innovations so highly touted today will be with us a decade, two decades, three decades from now?

WHERE WE ARE: CURRICULUM PRESENT⁷³

THE ELEMENTARY SCHOOL

Following the so-called "Back-to-Basics" movement of the 1970s and 1980s, schools at all levels across the nation are still struggling to raise student achievement in the subject areas. Nowhere are these efforts more apparent than in the elementary school, where efforts continue to improve students' mastery of the basic skills.

Concerned about students' low achievement and public dissatisfaction, schools have taken strong and sometimes controversial measures for improving student achievement and restoring public confidence. Among the measures designed to raise student achievement during the past three decades are the following:

- Implementation of strategies based on the "effective schools" research documented by Ronald P. Edmonds, Wilbur Brookover, Lawrence Lezotte, and others.⁷⁴ This body of research has led teachers to such practices as keeping students on task, holding learners to high expectations, and monitoring pupil achievement.
- Implementation of research on instruction conducted by David C. Berliner, N. L. Gage, Donald M. Medley, Barak V. Rosenshine, and others, whose research

attributed such factors as time on task (academic engaged time) and direct instruction to effective teaching.⁷⁵

- Emphasis—what some people would call overemphasis—on testing. Student progress is monitored by a plethora of local, state, and national tests and is measured not only by local and state criterion-referenced tests but also in some cases by national norm-referenced tests.
- Detailed planning and demand for implementation of the curriculum on a districtwide and sometimes statewide basis, sometimes referred to as “curriculum alignment.” Curriculum coordinators and teachers strive for a degree of curriculum uniformity by specifying pupil performance objectives in targeted subject areas for every grade level. School personnel choose or prepare teaching materials, learning activities, and tests that fit the specified objectives. Those objectives that are tested by state and national examinations are included and coded by test. Some school systems specify objectives and administer tests for each marking period in the designated disciplines. Principals’, teachers’, and—*ipso facto*—the schools’ successes are measured by pupils’ mastery of the objectives. Today we find emphasis—what some people would call overemphasis—on testing. The states are currently deep into standards-based education and assessment, made more urgent by the *No Child Left Behind Act of 2001*. Consequences in the form of reduced federal funding and the enabling of parents to send their children to schools of their choice are attached to those schools whose pupils continue to show poor academic achievement.⁷⁶
- Supplementing (some people, perhaps, would prefer the word “supplanting”) traditional testing techniques, many teachers are turning to authentic or performance-based assessment in the form of individualized portfolios and projects. We will return to the use of performance-based assessment in Chapter 12.

Driven by an awareness of less than laudable student academic achievement and competitive factors like parental choice of school, vouchers, charter schools, and home-schooling, schools are continuing to seek ways to improve students’ mastery of the basic skills and academics.

While struggling to fulfill essentialistic goals of subject matter achievement schools are at the same time applying progressive principles as seen in concern for enhancing the self-esteem of learners.

Teaching Thinking Skills

A good sixty years ago (1944) the Educational Policies Commission identified the ability to think as one of the Ten Imperative Needs of Youth.⁷⁷ Seventeen years later the Educational Policies Commission set forth the premise that the central purpose of American education was the development of the student’s ability to think.⁷⁸ About the same time the influential National Committee of the National Education Association’s Project on Instruction included among its priorities for improving the instructional program of the schools “ways of creative and disciplined thinking, including methods of inquiry and application of knowledge.”⁷⁹

In the 1980s we witnessed a resurgence of interest in the teaching of thinking skills. Prominent national organizations called for renewed and increased emphasis on the development of thinking skills. Among these associations are the National Council of Teachers of Mathematics;⁸⁰ the National Council of Teachers of English;⁸¹ the National Science Board Commission of Pre-College Education in Mathematics, Science, and Technology;⁸² and the Association for Supervision and Curriculum Development.⁸³

A new body of literature defines thinking skills and suggests strategies for teaching those skills. Discussion has moved away from the general declared goal of teaching young people to think to identification of thinking skills and prescribed methods for achieving those skills.⁸⁴

As with many other terms in education, we can find differing definitions of thinking skills. Barry K. Beyer pointed out that some people use the term “critical thinking” to signify all forms of thinking. Beyer maintained that it was a mistake to equate critical thinking with inquiry, decision making, problem solving, and other thinking skills. Said Beyer, “Critical thinking is, instead, the process of determining the authenticity, accuracy, and worth of information or knowledge claims.”⁸⁵ Where the experts agree, however, is that thinking skills are fundamental, the most basic of the basic skills.

Provision for Students with Special Needs

Schools are struggling to meet the needs of many special groups—exceptionalities of all types of students, including the physically disabled, emotionally disturbed, mentally retarded, and those with behavior disorders. Bolstered by federal legislation and dollars and by state mandates and funding, special education is a fundamental part of today’s curriculum. To care for the needs of many exceptionalities, special education teachers, psychometrists, and school psychologists have been in demand.

One of the groups with special needs—the so-called “students-at-risk”—has received considerable attention in recent years. Students-at-risk may be narrowly defined as those students most likely to drop out of school or broadly defined as those most likely to emerge from school with insufficient education, unprepared to play a productive role in society.

Students-at-risk tend to come from low-income environments and to perform poorly in the basic skills. Proposals for meeting the needs of students-at-risk suggest modification of instructional strategies, such as offering compensatory education and increasing student motivation; staff development to enable teachers to understand the special needs of these students; increased use of positive disciplinary practices; encouraging participation in extraclass activities; working with parents; addressing community problems; and abandonment of the graded school structure.

Increasingly, a cyclically neglected group—the gifted—is receiving attention through classes and other means that are designed for their particular intellectual capacities. Bilingual education programs are provided for those pupils for whom English is not their native language. In Chapter 15 we will examine some of the issues involved in providing for educating speakers of languages other than English and for exceptionalities.

Concentration on pupils with special needs such as the learning disabled and the gifted has provoked some objections from parents and others who perceive the schools as neglecting “woodwork children,” that is, average students.

Multiage Grouping

That the concept of nongradedness is alive can be seen in the form of multiage classrooms that can be found in elementary schools in various parts of the country. Students of different ages and abilities are grouped in a single classroom, progress at their own rate, and remain with the same teacher or teachers for two to three years.⁸⁶

Kentucky's Primary Program, for example, follows the "cultural attributes: continuous progress, developmentally appropriate educational practices, authentic assessment, multiage and multiability classrooms, qualitative reporting methods, professional teamwork, and positive parent involvement."⁸⁷

Cooperative Learning

The strategy of organizing people into small instructional groups with the intended purpose of helping each other is discussed in Chapter 11.

Differentiated Instruction

Over the years educators have stressed the need for individualized instruction, personalized instruction, and appealing to individual differences. In a similar vein we speak of *differentiated instruction*, teaching techniques that address the multiplicity of differences among children in today's classrooms. We will return to methods of differentiating instruction in Chapter 11.

THE MIDDLE SCHOOL

An Institution for Young Adolescents

Not too long ago our hypothetical school district maintained a traditional organizational plan for six years of senior high school. Dissatisfaction with that organizational structure had been brewing for a long time. As our school staff studied the literature and watched innovations at other school districts, they began to realize that the junior high school as they knew it was rapidly disappearing. A new institution—the middle school—was rising to the forefront, creating an organizational structure more suited to its time.

As it became clear to the personnel of our hypothetical school district that the needs of a special group of youngsters—young adolescents or, as Donald H. Eichhorn called them, "transescents"⁸⁸—were not being met by the existing junior high school structure, they implemented dramatic and substantial changes which had an impact on all levels of the educational ladder of that district. The elementary school lost a grade, and the senior high school regained a grade that it had lost years ago to the junior high school. The junior high school was transformed into a middle school that consisted of three grades (six through eight) for preadolescents—the children in the middle.

Special Needs of Students. Some other countries have recognized the needs of middle students for a long time, as in Germany with its *Mittelschule*. Boys and girls of the

pre- and early adolescent years, ages ten to fourteen as a rule, are too mature to be treated as primary school children and too immature to be considered high schoolers. They evidence a host of physical, social, and emotional growth needs as well as educational demands. Their career and life interests are just beginning to take shape. They need time to explore, to adjust, and to socialize as well as to study.

As a result, the junior high school spun off from the other levels as a separate institution and mushroomed. From the two identified separate junior high schools with grades seven, eight, and nine in 1910, the junior highs grew to some six thousand.

Lounsbury and Vars characterized the junior high school as a significantly successful development in American education.⁸⁹ Although the seven-eight-nine pattern was the most common for the junior high school, other relatively common patterns were seven-eight, six-seven-eight, seven through ten, and eight through ten. Despite this variety, as the years passed dissatisfaction with the junior high school began to set in. It was argued that this intermediate school had become a carbon copy of the senior high school with all its trappings—interscholastic athletics, band, high school subjects, and so on.

Junior high school students were changing not only physically but also socially in response to new, unexpected social pressures and values. As a result of these changes and of society's new demands on adolescents, the program for these years was revised and updated. A new organizational pattern at the intermediate level grouped grades five or six through eight into a middle school with its own unique program, and a four-four-four system or five-three-four system began to emerge. Although the ninth grade is generally considered as "belonging" to the high school, there is some uncertainty amongst middle-school specialists as to whether the fifth grade should be attached to the elementary school or to the middle school.

Phenomenal Growth. The middle school has experienced phenomenal growth. In 1965 the Educational Research Service of the National Education Association conducted a nationwide survey and found 65 middle schools.⁹⁰ In a 1967–1968 survey William M. Alexander reported 1,101 middle schools, and Mary Compton accounted for 3,723 middle schools in 1974.⁹¹ Kenneth Brooks identified 4,060 middle schools operating in 1978.⁹² By the mid-1980s figures showed close to 7,000 middle schools in existence.⁹³ A National Education Association publication in 1988 projected a figure of over 12,000 of these schools by 1992.⁹⁴ Jon Wiles, Joseph Bondi, and Michele Tillier Wiles placed the number of intermediate schools in the United States today at about 13,000.⁹⁵ Although junior high schools still exist in some communities, confirming Axiom 2 that curriculum changes of earlier periods can coexist with newer curriculum changes, their number has drastically declined as they undergo the metamorphosis from junior high school to middle school. Paul S. George, Chris Stevenson, Julia Thomason, and James Beane predicted the disappearance of the junior high school.⁹⁶

William M. Alexander and others saw the middle school as an emerging institution and defined it in the following manner:

To us, it is a school providing a program planned for a range of older children, preadolescents, and early adolescents that builds upon the elementary school program for older childhood and in turn is built upon by the high school's program for adolescence.⁹⁷

They perceived the middle school as a distinct phase of schooling between elementary and secondary school levels.

Somewhat later Alexander in writing with Paul S. George offered the following definition:

*We define a middle school as a school of some three to five years between elementary and high school focused on the educational needs of students in these in-between years and designed to promote continuous educational progress for all concerned.*⁹⁸

Transformation of the junior high school into a middle school should not be perceived as a reorganization of but one level of the school system. Alexander and others observed that the change from junior high to middle school is a reorganization of the entire grade structure.⁹⁹

Recommendations for the Middle School. Thomas E. Gatewood and Charles A. Dilg, speaking for the Association for Supervision and Curriculum Development's Working Group on the Emerging Adolescent Learner, made a series of recommendations for the middle school.¹⁰⁰ Let's examine a few. Speaking of the physical characteristics of transscents, they recommended:

A program for the emerging adolescent that is adapted to the ever-changing physical needs of this learner. . . .

Instruction related to growth of the body so that one can better understand changes in himself or herself and in others and be prepared for future changes and problems.¹⁰¹

Speaking of mental and intellectual growth, Gatewood and Dilg made the following recommendations:

Learning experiences for transscents at their own intellectual levels, relating to immediate rather than remote academic goals.

A wide variety of cognitive learning experiences to account for the full range of students who are at many different levels of concrete and formal operations. . . .

Opportunities for the development of problem-solving skills, reflective-thinking processes, and awareness for the order of the student's environment.

Cognitive learning experiences so structured that students can progress in an individualized manner. However, within the structure of an individualized learning program, students can interact with one another. . . .

A common program in which areas of learning are combined and integrated to break down artificial and irrelevant divisions of curriculum content. . . .

Methods of instruction involving open and individually directed learning experiences. The role of the teacher should be more that of a personal guide and facilitator of learning than of a purveyor of knowledge.¹⁰²

Speaking of personality development characteristics, Gatewood and Dilg recommended:

Administrative arrangements to ensure that personality development has continuity both in breadth and in depth. Thus continuous, cooperative curriculum planning is essential among elementary, middle, and secondary school personnel.

A comprehensive, integrated series of learning encounters to assist learners to develop a self which they realize, accept, and approve. . . .

Classroom instruction, counseling, and extra-class activities that take into account the social-emotional needs of transescents.

An approach in working with emerging adolescents that will have consistency with basic democratic principles.¹⁰³

Gatewood and Dilg have called attention to the broad range of physical, intellectual, and personal characteristics of middle school students. In their recommendations they have presented guidelines for meeting various needs of the emerging adolescent.

Proposed Design. Lounsbury and Vars proposed a curriculum design for the middle school that consists of three main components: core, continuous progress (nongraded learning experiences), and variable.¹⁰⁴

Core in their conception is “a problem-centered block-time program.”¹⁰⁵ The continuous progress (nongraded) component consists of “those skills and concepts that have a genuine sequential organization.”¹⁰⁶ Science, for example, may overlap with the core along with its placement in the nongraded component. The variable component is comprised of “the activities and programs that have proven their worth in schools . . . neither so highly sequential as to be placed exclusively in the nongraded component nor so essentially problem-centered as to fit entirely within the core.”¹⁰⁷ The middle school curriculum as proposed by Lounsbury and Vars is shown schematically in Figure 9.1.¹⁰⁸ Note that this proposal incorporates some earlier principles of the core curriculum and nongradedness.

Our hypothetical junior high school has changed to a pattern that has been in successful operation throughout the United States for some forty years. The middle school in our hypothetical school district is a significant development in education for the preadolescent years.

Seeing intermediate schools as offering a “broad and personal program of general education,” Wiles, Bondi, and Wiles cautioned, “standardization of the school program brought an end to the junior high school and threatens today’s middle schools.”¹⁰⁹

THE SENIOR HIGH SCHOOL

A Comprehensive High School

The academics? Students from this school regularly achieve high scores on state tests of achievement in the subject areas and readily pass the state exit exam; graduates are placed in college and universities without difficulty; students master computer skills; science students yearly win recognition at the science fairs; foreign language students bring home prizes from state competitions in their field; many students are enrolled

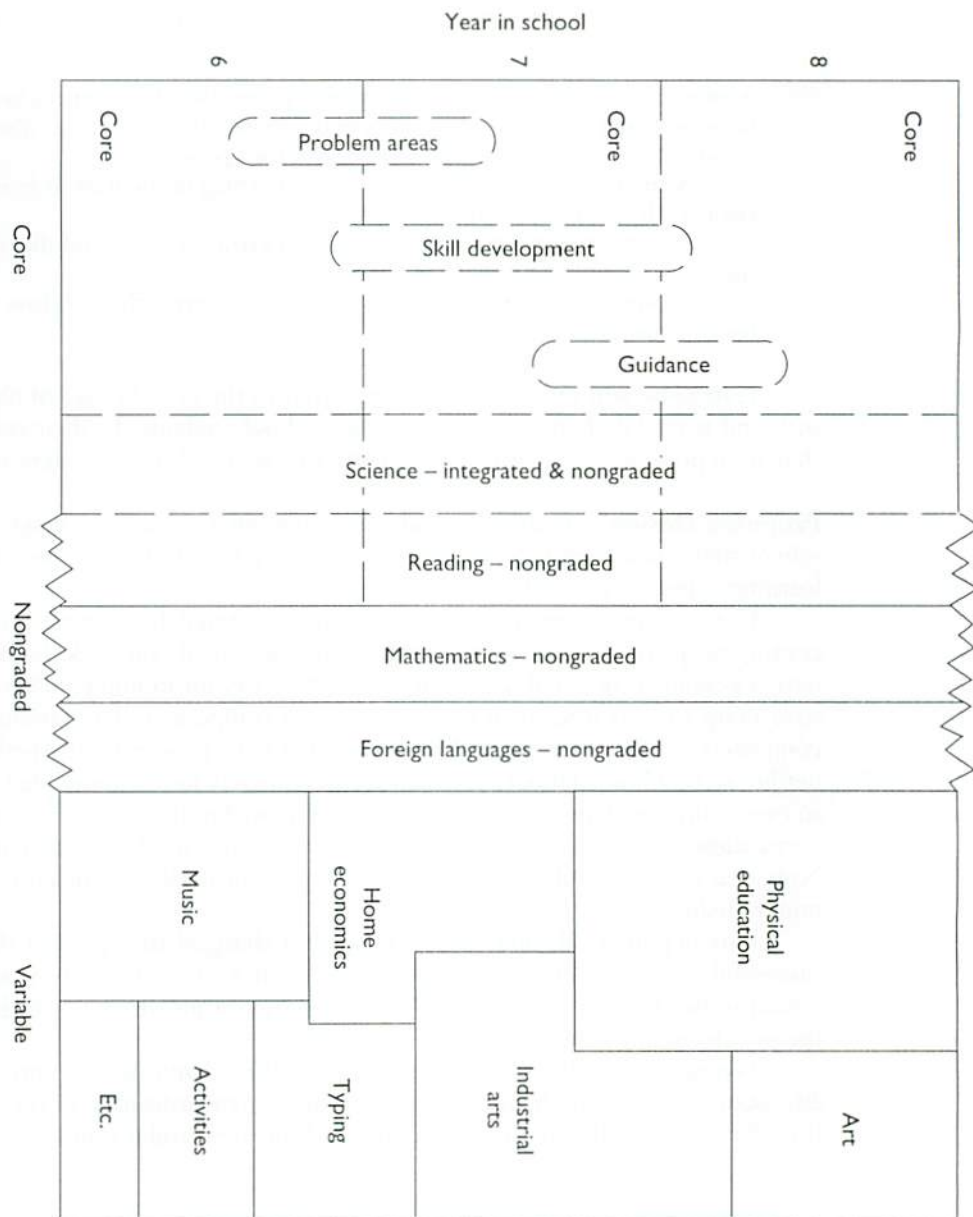


FIGURE 9.1 A Junior High/Middle School Program. Note that core classes are scheduled back-to-back in order to facilitate cross-graded grouping on a temporary basis wherever appropriate. From Gordon F. Vars, "New Knowledge of the Learner and His Cultural Milieu: Implications for Schooling in the Middle Years," Paper presented at the Conference on the Middle School Idea, College of Education, University of Toledo, November 1967. Reprinted by permission. ERIC Document No. ED016267CG901400, p. 14. See also John H. Lounsbury and Gordon F. Vars, *A Curriculum for the Middle School Years* (New York: Harper & Row, 1978), p. 45.

in advanced placement courses; the student body as a whole is well above the norm in reading and mathematics.

Marching band? They can put on a razzle-dazzle spectacular at half-time and compete with the best. They have been invited to participate in parades of the major bowls in the United States.

Football? Basketball? Try baseball, golf, and tennis. The showcase in front of the principal's office is crammed with shiny trophies won by students of this school. School officials are moving rapidly to eliminate gender discrimination in athletics and proudly display trophies won by both the boys' and girls' teams.

Business education? Students are mastering the use of computers, electronic typewriters, and fax machines. Students in all programs are encouraged to develop skill in typing and word processing.

Art? Come to the annual art show put on by the school's art students to appreciate the excellence of their work.

Vocational education? Wood shop, metal shop, electricity, and auto mechanics are all available. Each shop has ample space and is well equipped.

What we are describing here is a high-quality, traditional, comprehensive high school. As such it meets the definition of a comprehensive high school given by James B. Conant, who saw it as "a high school whose programs correspond to the educational needs of *all* youth in the community."¹¹⁰ Personnel of this school concur with the Association for Supervision and Curriculum Development and with Conant as to the objectives of the school. The ASCD maintained:

The secondary school should be a comprehensive school. If a major task of the public school in America is to develop the basic values of a free society, and mutual respect for the range of persons and groups within our diverse culture, students must have an opportunity to live and work together. The comprehensive secondary school is an essential element in the development of a common viewpoint sufficiently strong to hold our nation together.¹¹¹

Conant cited three main objectives of a comprehensive high school:

First, to provide a general education for all the future citizens; *second*, to provide good elective programs for those who wish to use their acquired skills immediately on graduation; *third*, to provide satisfactory programs for those whose vocations will depend on their subsequent education in a college or university.¹¹²

This school performs well on criteria suggested by both Conant and the ASCD. Conant listed the following points to be considered in evaluating a comprehensive school:

- A. Adequacy of general education for all as judged by:
 - 1. Offerings in English and American literature and composition
 - 2. Social studies, including American history
 - 3. Ability grouping in required courses
- B. Adequacy of nonacademic elective program as judged by:
 - 4. The vocational programs for boys and commercial programs for girls

5. Opportunities for supervised work experience
6. Special provisions for very slow readers
- C. Special arrangements for the academically talented students:
 7. Special provisions for challenging the highly gifted
 8. Special instruction in developing reading skills
 9. Summer sessions from which able students may profit
 10. Individualized programs (absence of tracks or rigid programs)
 11. School day organized into seven or more instructional periods
- D. Other features
 12. Adequacy of the guidance services
 13. Student morale
 14. Well-organized homerooms
 15. The success of the school in promoting an understanding between students with widely different academic abilities and vocational goals (effective social interaction among students)¹¹³

ASCD Recommendations. Our hypothetical secondary school would meet not only the criteria set forth by Conant but also the standards recommended by the Association for Supervision and Curriculum Development. Writing for the ASCD's Commission on the Education of Adolescents, Kimball Wiles and Franklin Patterson made recommendations for the comprehensive high school, some of which are cited here:

Certain types of growth must be promoted in all youth who attend the secondary school. Each youth should develop increased understanding of self and his responsibility in society, commitment to democratic values, economic understanding, political acumen, and ability to think. . . .

The program for each individual must contain general education and specialized education. . . . One-third to one-half of each student's program should be devoted to general education . . . the required courses and activities . . . essential for competent citizenship. . . . One-half to two-thirds of each student's program should be used to develop his talents and so further his personal goals within the framework that the community is willing and able to support. . . .

Choices among the various offerings of the curriculum should be made jointly by the pupil, parents, and staff members of the school in terms of the pupil's purposes, aptitude and level of achievement. . . .

Each student should have one staff member who guides him throughout his high school career. . . .

Each high school student should be a member of at least one home base group with which he has a continuing relationship. . . .

Students should be grouped in various ways in different phases of their high school experience. . . . the general education phase of an individual's schedule should be in classes that are heterogeneously grouped. . . . In the portion of the student's program that is elective, the grouping should be homogeneous in terms of two factors: the pupil's intensity of purpose and his level of achievement.¹¹⁴

When Conant came out with his follow-up study, officials of our hypothetical senior high school were pleased that their school compared favorably with the better comprehensive high schools. They surely enrolled more than 750 pupils; they graduated

at least 100 pupils every year; they offered calculus and four years of a modern foreign language (two languages, to be exact); their ratio of counselors to students was within the recommended range of 250 to 300; their students were grouped homogeneously in the elective subjects and heterogeneously in the required courses; and they offered a full range of courses in the academic disciplines, business education, homemaking, and industrial arts.¹¹⁵ This school met the tests of comprehensiveness well.

Some Alternatives

The comprehensive high school was conceived as a unique American response to the needs of youth. Every young person would find in this institution programs necessary to his or her present and future success in society. The comprehensive high school was a reaction to specialized high schools that cared for specific segments of the student population. This institution would accommodate boys and girls from every social stratum and ethnic group. Students would study, work, and play together, thus breaking down barriers between them. The comprehensive high school was a democratic response to education in a democratic society.

The comprehensive high school, however, has not been free of criticism. Some felt it deemphasized the academics; others felt the opposite and claimed it deemphasized the affective domain. Some believed it was too structured; others, that it was not structured enough. Some maintained it was taking on too many responsibilities; some, that it was not assuming enough. Some accused the comprehensive high school of slighting career education; others were not satisfied with the students' achievement in the cognitive domain.

Call for Reform. Over the years we have heard repeated clarion calls for "reform" not only in secondary education but also in public education at all levels. Larry Cuban noted that efforts at reforming education have been made "again, again, and again."¹¹⁶ John Henry Martin, author of *The Education of Adolescents*—the report of the National Panel on High Schools and Adolescent Education of the United States Office of Education—expressed the belief that the Seven Cardinal Principles were too inclusive and were "inflated statements of purpose."¹¹⁷ He argued that the Seven Cardinal Principles were much too broad, stating, "Among the unfortunate consequences of the sweeping language of the Seven Cardinal Principles has been our assumption that the schools could reform all of society's ills. Schools have undertaken burdens that they have neither the resources nor the talents to overcome."¹¹⁸ The excessive offerings and services of some high schools have caused Arthur G. Powell, Eleanor Farrar, and David K. Cohen to apply the label, "Shopping Mall High School."¹¹⁹

Richard Mitchell challenged the Seven Cardinal Principles as anti-intellectual, labeling them, "The Seven Deadly Principles" proposed by "The Gang of Twenty-Seven" (i.e., the National Education Association's Commission on the Reorganization of Secondary Education appointed in 1913). Mitchell was favorably disposed toward the NEA's Committee of Ten, which was formed in 1892 and made "largely of scholars."¹²⁰

Martin took the position that schools cannot be responsible for all aspects of life, that goals of the school (that is, the high school) must be redefined, and that aims more modest than those of the Seven Cardinal Principles must be set. Theodore R.Sizer,

however, observed that Americans have agreed for decades on the goals set forth by the Seven Cardinal Principles.¹²¹

Martin perceived the community as sharing responsibility for the education of youth. He advised as follows:

Redefining the goals of schools and building new relationships between youth and adults requires that the comprehensive high school be replaced with a comprehensive program of community-based education. Such a design for the education of adolescents should delineate those purposes of education that would remain the primary responsibility of the high school, those that might better be shifted to other and new community agencies, and those that would be served by a cooperative sharing of resources.¹²²

A. Harry Passow discussed proposals of five national groups looking at secondary education.¹²³ In addition to the reports of the National Panel on High Schools and Adolescent Education, the American public has received reports from the National Association of Secondary School Principals,¹²⁴ the National Commission on the Reform of Secondary Education (referred to as the Kettering Commission),¹²⁵ the Panel on Youth of the President's Science Advisory Committee,¹²⁶ and Educational Facilities Laboratories and IDEA.¹²⁷

Among the proposals coming out of the national groups in the 1970s were calls for

- a reduced school day with more time being spent in work experience programs in the community
- educational options—that is, alternative forms of schooling to be selected by students and parents
- a lowering of the age of compulsory attendance to fourteen years of age
- establishment of specialized high schools in the European tradition
- an emphasis on career education
- restriction of the function of the high school to cognitive learning

It is clear that if some of these proposals were seriously considered and adopted, the comprehensive high school that was designed to bring together young people from all walks of life and offer a wide range of programs would be greatly altered or might even disappear.

Reform Efforts

Movements toward accountability, emphasis on cognitive skills and minimal competencies, expansion of content, an increase in academic engaged time, frequent testing, and the raising of marking standards have affected the high school as well as the levels below. During the 1980s and early 1990s, the high school has been examined and reexamined in a series of reports that produced numerous recommendations.¹²⁸ Schools are engaged in testing some of the proposals found in the reports.

Among the many widely discussed reports during this period were the following:

- *The Paideia Proposal: An Educational Manifesto* by Mortimer Adler for the Paideia Group (1982); one track for all, no specialized job training.¹²⁹
- *A Nation at Risk: The Imperative for Education Reform* by David P. Gardner for the National Commission on Excellence in Education (1983); five basic subject fields for graduation, longer school day or longer school year.¹³⁰
- *High School: A Report on Secondary Education in America* by Ernest L. Boyer, president of the Carnegie Foundation for the Advancement of Teaching (1983); required core of academic subjects, one unit of community service.¹³¹
- *A Place Called School: Prospects for the Future* by John I. Goodlad (1984); five domains of knowledge, common required core.¹³²
- *Horace's Compromise: The Dilemma of the American High School* by Theodore R.Sizer (1984); language and math skills, no universal body of subject matter, character education.¹³³
- *Essential Components of a Successful Education System* by The Business Roundtable (1990); performance-based system; assessments, rewards, and penalties for schools.¹³⁴
- *What Work Requires of Schools: A SCANS Report for America 2000* by The Secretary's Commission on Achieving Necessary Skills; basic skills, thinking skills, personal qualities, technological competency.¹³⁵
- *Horace's School: Redesigning the American High School* by Theodore R. Sizer (1992); competencies rather than conventional subjects, personalized teaching.¹³⁶

Four of the studies (Adler, Business Roundtable, Gardner, and Goodlad) addressed schools at both the elementary and secondary levels.

Having reviewed past developments and evaluated present programs of the high school, our hypothetical curriculum committee—like those in other school systems throughout the country—is studying the many, sometimes conflicting recommendations for change in the high school in light of state and national legislated reform efforts.

Assessing the impact of these studies is difficult. The Conference Board reported that ten years after *A Nation at Risk*, business involvement in the schools had increased, new programs had been developed, broad-based coalitions had been formed, and the public's attention to education had been attracted and maintained.¹³⁷ Nevertheless, education reform remains very much on the agenda of nongovernmental as well as governmental organizations. The Koret Task Force on K–12 Education, comprised of resident and visiting fellows of the Hoover Institution at Stanford University, launched an effort in the fall of 2000 to address major issues in American education. Speaking of the status of K–12 education twenty years after *A Nation at Risk*, the Task Force concluded, “U.S. education outcomes in many ways show little improvement since 1970.”¹³⁸

Sizer sought to stimulate reform through the Coalition of Essential Schools, which was formed in 1984. Working with fifty-two schools Sizer attempted to combat the “shopping mall” concept of the high school by encouraging schools to reduce the amount of subject matter covered and to emphasize depth rather than breadth. Sizer's efforts encountered difficulties including financing; faculty resistance, cynicism, and inertia; parental concern over deemphasis of extracurricular activities within the context of the school day; and student objections to a more demanding, academically oriented curriculum.

Among early reported successes of the coalition schools (schools within schools) are improved reading scores, a rise in the number of graduates going on to college, and a decrease in the dropout rate. Emphasis on the academics for all students, a coaching model of instruction, smaller classes, and local faculty control are central toSizer's efforts.

To tackle school reform more effectively the Coalition of Essential Schools entered into an alliance with the Education Commission of the States "to encourage the reform effort 'from the schoolhouse to the statehouse,'" an initiative aided by Citibank and the Danforth Foundation, labeled "Re: Learning."¹³⁹ Horace's Franklin High School, Sizer's fictitious vehicle for conveying coalition principles, pictured an "adaptation of Essential School ideas."¹⁴⁰ Among recommendations of the fictitious committee of Horace's school were organization of the curriculum into three areas, two stages for all, a third voluntary stage, an integrated curriculum, demonstration of mastery by Exhibition, and focus on a limited number of competencies.

Sizer, speaking of subsequent reform efforts of some of the members of the coalition, observed, "Each of these schools reports improved student academic performance, attendance, morale, and admission to college." He continued, however, "... comparative assessment of success or failure remains conjectural, but judgments from close observation are encouraging."¹⁴¹ Currently the Coalition of Essential Schools Network comprises some 170 affiliate schools and 23 affiliate regional centers subscribing to common principles among which the affiliates opt for depth over coverage and goals applicable to all students.¹⁴²

We have to take notice of the cyclical nature of curricular recommendations. The Committee of Ten (1894) recommended the same program for all high school students. Almost 100 years later the Paideia Group (1982) was proposing a single track for all students during their twelve years of schooling.¹⁴³ Conant (1959) recommended a year of calculus in high school, as did the Paideia Group (1982). In 1959 Conant advocated foreign languages for the academically talented (four years of one foreign language), in 1983 the National Commission on Excellence in Education recommended two years of a foreign language for the college-bound, and in that same year Boyer advocated beginning foreign language study in the elementary school and requiring two years of all high school pupils. Conant (1959) pointed to the need for more guidance counselors, as did Boyer (1983). Goodlad (1984) accepted the broad categories of human knowledge and organized experiences of the Harvard Committee on General Education (1945).

Will schools lean toward recommendations made in the 1980s and 1990s? Will they go even further back to the Committee of Ten, the Commission on the Reorganization of Secondary Education, or the Educational Policies Commission? Will they adopt other measures for reform and restructuring, such as state and national standards, state and national assessment, privatized schools, schedule revision, and smaller schools, which we examine in Chapter 15?

What we are most likely to see will be a synthesis of the many recommendations with variations determined by local school districts and the states. No single standardized model of secondary education—nor of elementary or middle schools, for that matter—is likely to be acceptable to all the school systems in the United States. Certainly, as the trend toward greater local autonomy over the school's program and toward the empowerment of teachers and parents gains momentum, diversity of models may be anticipated.

With state assessments to comply with the No Child Left Behind Act of 2001 in grades 3, 5, and 7 plus state exit exams required in many states, it has become more difficult for high school students to earn a diploma—a fact that may satisfy a long-held wish of both the public and the profession to make the high school diploma a symbol of a reasonable standard of academic achievement.

Once minimal competencies have been comfortably mastered by students, faculties can seek ways of enriching the program and responding to individual differences. Efforts to create voucher plans, proposals for tuition tax credits, and competition from private schools have contributed to forcing the public schools to reassess their programs. Although schools are now on a cognitive swing, they are not likely to abandon the psychomotor domain nor eliminate affective learnings from the curriculum. Two generations of progressive doctrine, with its concern for the whole child instead of solely the intellect, cannot be—nor should it be—lightly discarded.

During the intensity of reform efforts over the years, gains in student achievement have been less than satisfactory. Gene R. Carter, executive director of the Association for Supervision and Curriculum Development, in an online editorial, “High School Reform: What Will It Take to Engage Teens?” called attention to the fact that the high school graduation rate “hovers below 70 percent,” with one-third of the dropouts doing so “without making it past 9th or 10th grade.”¹⁴⁴ In a 1989 report, the Center for Policy Research in Education noted two waves of reform efforts. The first occurred from about 1982 to 1986 with state mandates for minimum competency standards. The second, beginning in 1986 and continuing into the present, saw efforts in some localities to restructure schooling at the local level. The Center observed that state policies were still more characteristic of first wave reform efforts than of the second wave’s implementation of restructuring at the local level.¹⁴⁵

Some relaxation of state mandating, however, occurred in the past decade with the movements toward empowerment of teachers and laypeople and site-based management. Note once again that change is incremental, rarely wholesale, across the board.

Donald C. Orlich in the late 1980s took a critical view of reform efforts when he observed:

This nation has wasted billions of dollars on poorly conceived but politically popular reform movements that have sapped the energies of schoolpeople. We need a national moratorium on reforms so that educators and local policy makers can analyze their own problems. This could lead to a new concept: *local system analysis*. Each local school district would systematically study its own cultures—yes, cultures—and then implement a carefully researched, well-coordinated, and well-funded plan for specific improvements.¹⁴⁶

Although state mandating had tapered off in the 1990s, reform efforts have intensified in recent years with the promulgation of national goals under three federal administrations, state and national efforts at developing standards and assessment, and individual and group recommendations. Like many efforts in education, the process of goal-setting and varying goal statements of the 1980s and 1990s has met with criticism. Kenneth A. Sirotnik found “the continual displays of lists of lofty educational goals a curious phenomenon.”¹⁴⁷ Following the 1983 report of the National Commission on Excellence

in Education (*A Nation at Risk*), George Leonard disagreed with recommendations to improve education at that time and termed them the “Great School Reform Hoax.”¹⁴⁸ Several years later Lewis J. Perelman took a sharply critical view of reform efforts like America 2000, citing them as a failure and calling them a “hoax,” and advocated nothing less than substituting a privatized system of education that makes use of the latest technology in place of public schools as we know them.¹⁴⁹

Ernest R. House saw reforms of the 1980s, such as toughening of standards, testing, changes in school governance like decentralization and school choice, as low-cost efforts designed to protect middle- and upper-class interests.¹⁵⁰

Addressing “the school reform enterprise,” Goodlad observed, “school reforms fade and die, frequently from their own excesses.”¹⁵¹ Citing “apprenticeship in democracy”¹⁵² as the primary mission of schooling, Goodlad characterized current reform efforts as “empty homilies” like “all children can learn” and “no child left behind.”¹⁵³ Goodlad commented, “the current hard-and-tough era of school reform has overrun local schools like kudzu, threatening to squeeze out all else.”¹⁵⁴

School districts, the states, and the nation have continued pronounced efforts to improve the success and image of public education. Education held and continues to hold a top priority on the agenda of many state and national politicians of the late 1990s and early 2000s. Yet reform efforts of the 1990s in modifying goals, raising standards, assessing achievement, and promoting accountability do not satisfy some advocates of a more complete restructuring of schools and their curricula. They view recent reform efforts as promoting the so-called industrial or factory model of schooling whose goal, using standardized programs, is to prepare students for work instead of for what they believe should be the primary goal—democratic citizenship. They perceive the current model of schooling as imposed on students and teachers; viewed as perpetuating the dominance of white, male, European culture and regard it as undemocratic.¹⁵⁵ Renata Nummela Caine and Geoffrey Caine faulted the factory model of education for what they see as its emphasis on separate subjects, covering subject matter, memorization of facts, and lack of connectedness, averring that the model does not address “relevant skills and attributes students need for this century and the next. . . .”¹⁵⁶ The American public itself is ambivalent about the public schools. Forty-nine percent of the public, as surveyed by the 2006 Phi Delta Kappa/Gallup Poll of the Public’s Attitudes Toward the Public Schools, would assign an A or B grade (on an A–F scale) to schools in their community but only 21 percent of the public would give similar grades to schools nationally.¹⁵⁷ The moral of the story: the closer the school to the general public, the higher the rating. The poorer schools are perceived as on someone else’s turf.

In spite of or, perhaps we should say, because of the failure of past reform efforts, schools are making attempts to improve student achievement in responding to No Child Left Behind. Suffice it to say at this point that we are in an age of assessment and accountability. We will return to No Child Left Behind when we discuss standards and assessment in Chapter 15.

Alternative Schools. Some of the current criticisms of public education have resulted in an increase in alternative schools at both the elementary and secondary levels. Alternative education is also known as education by choice or educational options.

Let's briefly consider the rationale for developing and supporting alternative public secondary education. Some young people, perhaps many, cannot profit from the established high school; they cannot learn effectively in a structured setting. The impact of agencies outside the school—the families, peer groups, churches, businesses, and industries—on learners is far greater than that of the school; these agencies should therefore be tapped. In a democratic society families should have a choice as to the type of education they wish their children to receive. Unless the public schools make changes from within, young people will either drop out physically, stay in and drop out mentally, or transfer to private schools.

What, we may ask, is an alternative school? The National Consortium for Options in Public Education described an alternative school as “any school (or minischool) within a community that provides alternative learning experiences to the conventional school program and is available by choice to every family within the community at no extra cost.”¹⁵⁸

Some school systems have established what are called “alternative schools” for young people with behavior problems who cannot function well in regular schools. However, these schools are not alternative schools in the sense described by the National Consortium because they are not available by choice. Students are assigned to these schools by the school system and must remain until their behavior improves sufficiently for them to return to their regular schools. (In the case of some alternative schools, however, choice by parents and students must necessarily be restricted by admission requirements and examinations, especially when demand for enrollment exceeds the capacity of the school.)

Free schools, street academies, storefront schools, and schools without walls are examples of alternative education. Among the better known options are the Parkway Program in Philadelphia, which dates back to 1969, and Metro High School in Chicago, which began its program in 1970. In programs of this type, the community, in effect, becomes the school. The school system enlists the cooperation of business, cultural, educational, industrial, and social institutions to serve in the education of young people. The school system draws on the talents of knowledgeable and experienced persons in the community to serve as instructors.

However, education by choice is possible in the more typical school *with* walls. Parents may be accorded the option of placing their children in open-space schools, bilingual schools, or even traditional basic skills schools. In many communities, particularly in urban centers, parents may choose to send their children to a *magnet school*, an institution that offers high-quality specialized programs around a central theme designed to attract students from all parts of the school district. Developed as a means of fostering racial integration, magnet schools offer strong academic or vocational programs in specialties that appeal to young people from all ethnic groups and that are not adequately provided, if at all, in the traditional schools.

The Boston Latin School, Detroit's Cass Technical School, the Bronx High School of Science, New York's High School for the Performing Arts, Brooklyn Tech, Stuyvesant High School in New York City, Lane Technical School in Chicago, Central High School in Philadelphia, and Lowell High School in San Francisco are examples of specialized schools that were forerunners of today's magnet schools. Since attendance at a magnet

school is by choice rather than by assignment according to neighborhood boundaries, magnet schools often produce higher student motivation and achievement.

Magnet schools have grown in number in recent years.¹⁵⁹ Dallas, Texas, furnishes an example of the rapid growth of magnet schools. Since 1976 that community has established seven magnet schools in addition to the already existing Skyline Center: the Arts Magnet High School, the Business and Management Center, the Health Professions High School, the Human Services Center, the Law and Public Administration High School, the Transportation Institute, and the Multiple Careers for special education students. Whitney High School in Cerritos, California, has as its sole mission preparation of its academically able students for college admission.

Developments of the early 2000s and apparently the first public schools of their kind are the Puerto Rico Baseball Academy and High School with its concentration in the sport of baseball; an alternative high school in New Britain, Connecticut, offering students-at-risk training for jobs in Homeland Security; and a high school for gay, bisexual, and transgender students in New York City.

Extending the magnet school concept on a statewide basis, some states have considered or established residential public secondary schools. Opened in 1980, the prototype of such schools in the United States, the North Carolina School of Science and Mathematics in Durham, admits juniors and seniors from around the state on a competitive basis and offers them a highly intensive program.

The concept of choice in education is certainly appealing and is in the best democratic tradition. Obviously, growth in alternative schools will have an inevitable impact on the neighborhood and comprehensive schools, illustrating once again the change process in operation.

The American public—concerned that children achieve the fundamentals, that they have access to higher education, and that economy of operation is maintained—is unlikely to support radical departures from the established forms of schooling. The public is not likely to heed proposals for deschooling, that is, surrendering education of the young to businesses and other agencies in the community,¹⁶⁰ or for fully privatizing education.¹⁶¹ On the other hand, it may well support reasonable alternatives within the existing framework. Urging parents to “demand a modern and relevant system of education,” Jon Wiles and John Lundt recommended a number of alternatives to our present system of public education.¹⁶² We will examine some of the more recent and controversial aspects of alternatives in education and school choice like charter schools and homeschooling in Chapter 15.

Requirements for Graduation

In the mid-1900s, sixteen Carnegie units were the minimum required for graduation from the four-year high school. Only the academically talented carried five or more units per year. Twenty or more units are commonly required throughout the United States, with ten or more “solid” subjects required for the regular diploma.

Since the late 1980s, states have dramatically increased the number of credits required for graduation. Idaho and Alaska, for example, require twenty-one credits for graduation; Hawaii and Missouri, twenty-two, with an increase to twenty-four by 2010; Oklahoma, twenty-three; and West Virginia, twenty-four.¹⁶³

College-bound students exceed these minimal requirements. They are finding more of their high school program required and less elective as the number of subjects and credits that they must present for admission to college rises. States typically mandate a set (called a “core” by some people) of subjects that students must pass to earn the high school diploma. An increasing number of states have added the passing of a test to the requirements for the diploma.¹⁶⁴

The movement toward raising the requirements for graduation from high school is very much in line with repeated reports that have been issued over the years. The increase in requirements brings to fruition reports of the Committee of Ten (1894), the Harvard Committee (1945), James B. Conant (1959), and several reports of the 1970s and 1980s.

We may expect school districts and states of the future that have not already strengthened high school academic requirements to follow moves to increase the number of required courses, decrease the number of electives, raise the score considered passing in the various subjects, raise grades required for eligibility in sports, deemphasize extra-class activities, cover more content, make more effective use of instructional time, set passing of local and/or state tests as a requirement for the diploma, and improve teaching techniques, including the use of computers and other forms of technology. For a move in the other direction, to *decrease* requirements for graduation, see discussion of *three-year high school* in “Scheduling” in Chapter 15.

Public education today is under great pressure to raise achievement levels of all students at all levels. It is experiencing stresses and strains, successes and failures. It faces competition for funding and from alternative forms of schooling. Further, it faces a shortage of teachers, let alone “highly qualified teachers,” as required by No Child Left Behind. At one end of the continuum we find ardent champions of the public schools; at the other end, opponents who criticize what they refer to as “government schools.” To present a balanced picture, Gerald W. Bracey, in annual reports on *The Condition of Public Education*, rebuts some of the criticisms of public education, presents and analyzes significant data, and cites its accomplishments.¹⁶⁵

Other Modes

As we travel today’s educational scene we encounter educators and laypeople who are implementing newer administrative, organizational, and curricular modes that depart from the traditional such as block scheduling, year-round schooling, and inclusion, which we will examine in Chapter 15.

To summarize Curriculum Present, we discern strong currents and countercurrents. We witness a constant tug-of-war between latter-day progressivist and essentialist educators and parents. We find champions of cooperative learning, integration of the curriculum, whole language, values education, interdisciplinary programs, inclusion and mainstreaming of exceptional children, nongradedness, multicultural education, and portfolio assessments arrayed against advocates of academic learning, separate courses, increased requirements for graduation, increased hours of the school day, increased days of the school year, phonics, traditional assessment, school choice, and national standards of achievement.

WHERE WE'RE GOING: CURRICULUM FUTURE

THE ELEMENTARY SCHOOL

Blending of Traditional and Nontraditional Modes

Today we find the elementary school maintaining its emphasis on the basic skills while at the same time addressing other educational, physical, social, and emotional needs of pupils. To the present time the public, through its state legislatures, has given its strong endorsement to programs of state assessment—the testing of youngsters in a number of subject areas, but especially in reading and mathematics. There is some evidence that reaction to testing is setting in. Although testing, both standardized and teacher-made, remains a feature of most schools, by parental and state support if not by educators, other forms of assessment are being incorporated into the curriculum. We will discuss newer techniques of assessment in Chapter 12.

Our hypothetical elementary school has long since restored the walls it removed in open-space days, reverting to the self-contained classroom model. The broad-fields approach will continue to predominate with more attention to integrating the curriculum through the use of units that cut across disciplines. Minimal competencies or outcomes in and across the various disciplines will be spelled out by the school, district, or state so that the direction of the school's program will be more evident. We may expect to see an increase in the practice of grading schools based on the progress made by their pupils and publication of the grades assigned. Among measures to improve pupil achievement are new instructional approaches, smaller classes, tutoring, summer sessions, and weekend classes. As never before, low-performing schools face penalties in the form of reduced funding or pupils opting to attend higher-achieving schools. The elementary school will attempt to curb the flight of pupils to private, home, and parochial schools by striving to ensure academic progress in a nurturing environment.

Mastery of the minimal competencies will be expected of all. There is the real danger that those competencies that are labeled "minimal" will become maximal as well. Teachers may be so preoccupied with helping students to achieve minimal competencies and pass the tests that measure attainment of the competencies that they will allow little time to go beyond the minimum. Current pedagogy calls for both individualized and cooperative learning experiences.

The essentialist-progressive pendulum continues to swing. The goal of the No Child Left Behind Act of 2001, that of making all pupils, including those of minorities, the disabled, and those of limited-English language ability, proficient in reading and mathematics by 2014, will keep pressure on schools for at least the next decade. Once schools have satisfied the public's desire for higher test scores and once the schools have demonstrated that pupils have mastered basic and survival skills, they may pay greater attention to the affective domain with its concern for attitudes, feelings, and values. We may find greater interest in individual students, in their learning styles, and in their special learning capacities. A growing body of research that reveals differences in learning strategies of students will affect teaching strategies.¹⁶⁶ We will find greater efforts on the part of administrators to match teachers' instructional styles with pupils' learning styles.¹⁶⁷

Other Developments

In his State of the Union message in January 1999, President Bill Clinton issued a call for ending social promotions. Since that time a number of states and cities have ended social promotions and require students to pass state or district examinations in order to move to the next grade level. Schools seeking to reduce grade retention are substituting alternative strategies, such as those shown in Box 9.1. Concomitant with the preoccupation with testing, however, school systems more than likely will expand the ban on social promotion, increasing the number of students retained in grade.

The elementary school of the immediate future will be a sophisticated version of the school of the past, essentialistic in character but with progressive overtones. We will see continuing experimentation with varying programs and practices, for example, current efforts at looping or multiyear grouping in which teachers stay with their students for two or more years¹⁶⁸ and single-gender classes and schools, the latter of which is discussed in Chapter 15.

THE MIDDLE SCHOOL

Predominance of the Middle School

The junior high school has fast faded from the scene. George and others noted a wave of middle schools during the 1980s with states endorsing the middle school concept and encouraging districts to establish middle schools.¹⁶⁹

Remaining junior high schools will continue to be converted into middle schools, in concept if not in name. Just as some senior high schools still cherish the historic name “academy,” some newly converted middle schools may continue to call themselves “junior high schools.” However, they will have all the characteristics of the modern middle school as described earlier in this chapter. New schools for transescentals will continue to be specifically built as middle schools and will be referred to as “middle schools” for “middle school students.”

We can anticipate further resuscitation of the core curriculum concept in the form of integrated curricula. Middle schools will continue to use interdisciplinary teams and interdisciplinary instructional units. Schools will revive earlier attempts at block and rotating scheduling. In a period of confusion on moral values and ethical behavior we may look for renewed interest in promoting character education along with the academics.

Organizations such as the National Middle School Association, the National Association of Elementary School Principals (which includes middle school principals), and the National Forum to Accelerate Middle Grades Reform are continuously seeking ways to improve the middle school programs. The National Forum, an organization composed of more than sixty educators, researchers, and officers of national associations and foundations, for example, has been identifying since 1999 “schools to watch,” high-performing exemplars of middle schools.

By gathering data, making visits to schools, and applying thirty-seven criteria, the National Forum named in February 2005 fifteen middle schools as schools-to-watch in California, Georgia, Kentucky, North Carolina, Ohio, and Virginia.¹⁷⁰

BOX 9.1

Strategies for Ending Social Promotion

Comprehensive approaches to ending social promotion require leadership, resources, and community support to:

Set clear objectives for students to meet performance standards at key grades.

Identify student needs early in order to apply appropriate instructional strategies.

Emphasize early childhood literacy.

Focus on providing high-quality curriculum and instruction.

Provide professional development that deepens teachers' content knowledge and improves instructional strategies to engage all children in learning.

Set out explicit expectations for all stakeholders, including families and communities, in efforts to help end social promotion.

Provide summer school for students who are not meeting high academic standards.

Extend learning time through before- and after-school programs, tutoring, homework centers, and year-round schooling.

Reduce class sizes in the primary grades.

Keep students and teachers together for more than one year and use other effective student grouping practices.

Develop transitional and dropout prevention programs for middle and high school students.

Hold schools accountable by publicly reporting school performance, rewarding school improvement, and intervening in low-performing schools.

Source: U.S. Department of Education, *Taking Responsibility for Ending Social Promotion: A Guide for Educators and State and Local Leaders, Executive Summary*, May 1999, website: <http://www.ed.gov/pubs/socialpromotion/execsum.html>, accessed May 4, 2003.

Innovations will, no doubt, continue to come down the pike. As an observer of curriculum developments for many years, I cannot help being awed at how rapidly some innovations flower into movements with a body of literature, recognized experts, a network of like-minded people, how-to textbooks and other media on the subject, and both preservice and inservice educational activities on the topic.

You may very well take the position that before the middle school reaches universality it may evolve into another institution, as yet undefined. Or you may well hold that middle schools will revert to earlier models of organization that combined elementary and middle schools into K-8 patterns as has happened in Baltimore, New Orleans, New York City, and Philadelphia. Hence, we can no longer predict the "universality" of the middle school but can safely say that the present middle school model will remain the predominant model throughout the country for some time to come. To support your position you can reiterate the axioms cited in Chapter 2: Change is both inevitable and necessary, for it is through change that life forms grow and develop; a school curriculum not only reflects but also is a product of its time; and curriculum changes made at an earlier period of time can exist concurrently with newer curriculum changes at a later period of time.

Earlier curriculum practices may not only exist concurrently with newer developments but also in cases where they are not currently found they may be called back into service to replace current practices.

THE SENIOR HIGH SCHOOL

Programs and Practices

Some of the present programs and practices discussed in this and later chapters will undoubtedly continue into the future, at least into the immediate future. Among these are constructivist practices and character/values education (Chapter 6), cooperative learning and recognition of multiple intelligences (Chapter 11), performance-based assessment (Chapter 12), and integration of the curriculum (Chapter 13). Schools may also become “full-service” institutions that seek to provide for intellectual, physical, vocational, cultural, and social needs of students.

If we were to fashion a mosaic of current innovative curriculum practices advocated by various groups and individuals, pupils would attend nongraded, full-service schools of choice; 220 days, year-round; following a pupil-oriented, integrated, interdisciplinary curriculum; working cooperatively; using multicultural materials; pursuing individual goals; constructively creating their own knowledge; developing their multiple intelligences; demonstrating success by exhibiting authentic performance; learning language by a whole-language approach; and deemphasizing or abandoning homework, grading, and testing as we now know it. Middle and secondary schools would feature block schedules. High schools would incorporate community service and school-to-work programs in addition to many of the practices of the other levels. Technology will permeate the curriculum.

Countertrends of national and state standards and national and state assessment make the preceding scenario somewhat unrealistic. If past is prologue, some of the current innovative practices will endure well into the twenty-first century; others will fall by the wayside. In an era of site-based management and empowerment of teachers and parents, what we are likely to see is a multitude of institutions with varying programs responding to community needs and wishes in addition to state and national standards.

Remembering Axiom 3, we can expect to find in the twenty-first century highly innovative schools (incorporating as yet-to-be-created innovations) on one hand and highly traditional schools on the other. Some of both genres will be termed effective; others, ineffective. More likely, we will find traditional schools that embody innovative practices or, put another way, innovative schools that have retained traditional practices.

TECHNOLOGY IN EDUCATION

Changes in the incorporation of technology in education are taking place rapidly, though perhaps not as rapidly as the changes in technology itself. Schools are challenged to go beyond the teaching of computer skills per se (i.e., computer literacy) to teaching computer skills as a part of education for specific careers, to using the Internet for research, to providing online lessons and courses, and to creating virtual schools. There is no

stopping the technology nor should there be. Schools will learn to live with and employ technology effectively.

Two of the problems in limiting the use of technology in the classroom have been the lack of computers and the shortage of teachers with proficiency in computer skills. With the plummeting price of computers and the manufacture of \$100 laptops the provision of hardware and software becomes less of a problem. Computer training today must be incorporated into the preparation program of teachers at all levels. Today's teachers must not be in the anomalous situation of possessing poorer computer skills than their students.

Access to computers and to the Internet has grown exponentially. The number of students per computer has grown from 7.3 in 1997 to 3.8 in 2002.¹⁷¹ Whereas thirty-five percent of public schools in the United States had access to the Internet in 1994 by fall 2002, ninety-nine percent had access.¹⁷²

It is common today to find school districts offering nontraditional instruction in the form of online courses, distance learning programs, and virtual high schools. In Empire High School in Vail School District, Arizona, laptops replace textbooks, creating an all-electronic school.¹⁷³ Philadelphia's School of the Future, established with support of the Microsoft Corporation,¹⁷⁴ and Detroit's Digital Learning Community High School with help from Apple Computer¹⁷⁵ offer state-of-the-art high-tech programs. We could cite examples of states and school systems from one end of the country to the other rapidly adapting their programs to developments in technology. A quick (virtual) tour would reveal Alabama's distance learning program,¹⁷⁶ Pennsylvania's cyber charter schools,¹⁷⁷ Kentucky's Virtual High School,¹⁷⁸ Hawaii's E-School,¹⁷⁹ California's Virtual Academies,¹⁸⁰ Montana's E-Learning Consortium,¹⁸¹ Stanford University's virtual high school for gifted students,¹⁸² and K12 Inc.'s virtual education program.¹⁸³ The list could be expanded as more and more school districts push their boundaries into the age of technology. Not only have the academic subjects gone high tech but also secondary students in Florida, for example, since 1999 can satisfy their physical education requirement via Florida's Virtual School.¹⁸⁴

That cyberspace knows no frontiers is readily demonstrated in the teaming of the University of Texas and Mexico to enable school districts in Texas to offer mathematics and science classes from Mexican high schools¹⁸⁵ and in the hiring of tutors in India to help children of parents residing in the United States.¹⁸⁶

The application of technology in the classroom, though enthusiastically endorsed by its proponents, has also met with criticism. Observing a diminished enthusiasm for the use of computers in education and the lack of "research unequivocally linking student technology use to improved learning," Mary Burns gave as one reason, "schools have conflated technology use with instructional quality and student engagement with improved learning and higher-order thinking. In all the excitement about new ways of teaching with technology, we educators may have neglected to pose the most fundamental question: Are students really learning?"¹⁸⁷ Budget cuts and No Child Left Behind mandates have further dampened enthusiasm, according to Burns. Larry Cuban depicted computers in the classroom as "oversold and underused."¹⁸⁸ Addressing the overdominance of computers, Lowell W. Monke saw the need to balance technol-

ogy with real-life, humanizing experiences.¹⁸⁹ Looking to the future we may expect the movement to virtual education to fully penetrate all levels of education from pre-kindergarten to graduate schools. Schools will give witness to the fact that computer skills have become one of the basic survival skills necessary in a technologically driven society.

States will routinely require demonstration of computer skills and completion of one or more courses online in order to graduate. We will see a mixture of public, free online instruction and for-profit virtual education programs. To help meet the challenge of creating technologically literate citizens the National Educational Technology Standards Project of the International Society for Technology in Education has developed a set of standards for prekindergarten through twelfth grade.¹⁹⁰ Whether instruction using computer software raises student achievement is problematic. A study conducted for the National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education found “test scores not significantly higher in classrooms using selected reading and mathematics software products.”¹⁹¹

In spite of concerns about the rapid inroads of technology there’s no turning back. We can’t put the genie back in the bottle. Nor should we try. The challenge of the electronic age to the schools is to apply technology in such a way that it promotes the mission of the school, particularly improvement in student achievement.

Smaller Learning Communities

The elementary and middle schools are not alone in wrestling with the problems of class and school size. An interesting development that we explore in Chapter 15 is the creation of smaller schools, termed “learning communities” by some, within established schools. Detroit’s aforementioned Digital Learning Community High School combines within its Crockett High School two current features—a smaller learning community and a high-tech curriculum. Should the movement to smaller high schools either within high school or separate from a larger high school gain in popularity and prove more successful in terms of student achievement, we may well be able to verify whether size of instructional units makes a difference in student achievement.

LOOKING FURTHER AHEAD

A growing number of individuals both inside and outside of the academic world are identified by the rather ambiguous label of “futurist.” One of the earlier and better known persons in this group is Alvin Toffler, whose books, *Future Shock* and *The Third Wave*, provoked many of us to contemplate problems of the future and to begin considering ways to solve them.¹⁹² High on the agenda of any futurist are problems like population control, health needs, preservation of the environment, housing needs, adequate food supplies, demands for energy, and the use and abuse of technology.

Some educational futurists view the new technology as aiding the teacher and administrator to provide a more effective education within the school setting. Others predict what amounts to a type of deschooling. More than two decades ago Peter Sleight, for example, reported on the type of deschooling that might be affected by the computer age:

It may be that children won't attend schools at all, but attend classes in their homes, taking lessons through the computer with the teacher talking to them through a video image.

Through the same network, the teacher will know whether a student is tuned in and can take "attendance" in the old-fashioned sense.

Homework for the children will also be changed. No longer will they be bringing home textbooks and doing assignments on paper. Instead, they may plug into the school data base to receive their assignments, execute them on the computer screen at home and "send" it to their teacher via the computer hook-up.¹⁹³

In the relatively few years since Sleight's prophetic comments in 1980 the use of scanning, e-mail, and faxing has become common in personal, business, and educational life. Through these techniques students can share the products of their work with each other and, in fact, with the world, if desired. Twelve years later Perelman moved beyond Sleight's predictions about deschooling and sought replacement of the traditional public school system with new techniques affected by technology, which he called "hyperlearning."¹⁹⁴

As you have noted in this chapter and will note again in Chapter 15 where we discuss alternatives in education, some schools, particularly those in rural and less accessible areas, are already implementing "distance learning," instruction at home via computer networks. Computers can allow ill students to keep up with classwork and interact with their teachers and classmates. Students enrolled in distance learning courses typically complete a part of their high school program interacting with instructors by means of e-mail or, depending on their location, by personal contact.¹⁹⁵

If the day comes when schools are eliminated and instruction proceeds through the medium of the computer, what will happen to the notion of face-to-face interaction between teacher and students and between student and student? We recognize the movement toward "interactive" learning by means of technology. Will interacting via a computer screen, fax, and printer enable learners to achieve the multiple goals of schooling? How will students learn to socialize with each other? What will happen to multicultural, multiethnic education? How will boys and girls learn to live in a pluralistic society? What will happen to cooperative learning? What disposition will be made of extraclass activities, driver education, and athletics formerly under the aegis of the school?

Perhaps we might wish to conceptualize computerized schooling as consuming only a portion of the day, with other forms of education in the school or community filling the remaining portion. At any rate, you may be safe in postulating that the elementary, middle, and senior high schools as we know them today and as we will know them in the immediate future may well evolve into decidedly different kinds of institutions in the distant future.

PUBLIC AND PRIVATE ENROLLMENTS

At the present time about eighty-seven percent of school-age children are enrolled in public education and approximately thirteen percent attend private and parochial schools. Figures for fall 2003 showed 48.5 million pupils in public schools. Private school enrollments were estimated at 6.3 million.¹⁹⁶ If the economy permits and especially if vouchers are easily obtained, we are likely to see a larger percentage of the public seeking alternatives to public education in the form of private, parochial, or charter schools or homeschooling. However, public education can survive—even flourish—by receiving adequate funding, by refining its practices, by making known its successes, and by meeting the competition head-on.



Summary

As curriculum planners proceed with their task of developing the curriculum, they must also decide on the organizational structure within which programs will be implemented. At the beginning of this chapter we visualized as illustrative examples three schools—elementary, middle, and senior high. Like their actual counterparts, our hypothetical schools have undergone numerous internal changes.

This chapter traced some of the past organizational patterns at each level, described current organizational structures, and discussed possible and probable future developments. On the elementary level we reviewed the graded school, the activity curriculum, continuous progress plans, and open-education/open-space plans. At the middle school level we looked at its predecessor, the junior high school, and at a variety of proposals for that level, including the core curriculum. We studied several organizational plans at the senior high school level, including the subject matter curriculum, the broad-fields curriculum, team teaching, differentiated staffing, flexible and modular scheduling, and the nongraded high school.

The elementary school currently emphasizes teaching basic and thinking skills and providing for students with special needs. Some schools are trying innovative departures from traditional practices. The middle school presently offers programs that have been adapted to meet the needs of preadolescents. A prevailing practice is the use of interdisciplinary teams. The senior high school is involved in efforts to establish a quality comprehensive model, to furnish a number of alternatives both within and outside the school system, and to reinforce higher requirements for graduation.

In the near future the elementary school, if it is to retain public support must continue emphasis on the basic skills, although it will intensify some of the fundamental overtones of child-centeredness. At this level we noted cooperative learning in practice. The middle school has generally become the predominant model for the education of preadolescents. At the present time we are witnessing some reversion to the K-8, elementary-middle school model. We may expect renewed efforts at integrating the curriculum, interdisciplinary teams, and block/rotating scheduling. The comprehensive high school will share the spotlight with magnet schools and other alternatives. The

high school will meet demands for reform and restructuring by adopting some of the recommendations of national studies and organizations and by incorporating some of the innovative practices found in many schools.

We can expect the ubiquitous computer, video recording devices, and other wonders of technology to literally revolutionize education at all levels. Curricula will need to respond substantively—and organizationally—to current and emerging social problems of growing concern to the American people.

Questions for Discussion

1. What are some ways of organizing and implementing the curriculum that have been repeated through American educational history?
2. Why have the graded school and the subject matter curriculum been so enduring?
3. Which of the present curriculum programs and practices do you believe are only temporary and will disappear in the future? Why?
4. How can curriculum planners reconcile conflicting proposals for reform of the high school?
5. What programs and practices would you add to the second and third sections of this chapter, "Where We Are: Curriculum Present" and "Where We're Going: Curriculum Future"?

Exercises

1. Explain what is meant by the activity curriculum. Critique this approach.
2. Describe advantages and disadvantages of the nongraded elementary school.
3. Look up the Eight-Year Study and write a report summarizing its methodology and findings.
4. Describe one or more core programs from either the professional literature or from a school with which you have firsthand experience.
5. Prepare a paper on the topic: "Shall We Group Pupils?" Whether the answer is yes or no, state reasons. If yes, explain how you would group.
6. Describe advantages and disadvantages of the nongraded elementary (continuous progress) school.
7. Describe advantages and disadvantages of the nongraded high school.
8. Describe one or more plans for team teaching and show its advantages and disadvantages.
9. Write a paper, citing at least three references, that accounts for the continuing emphasis on the basic skills.
10. Write a paper on the question of the placement of fifth grade in the educational system—in the elementary school or middle school?
11. Write a paper on the question of the placement of ninth grade in the educational system—in middle school or high school?
12. State pros and cons of specialized versus comprehensive high schools and show your position.
13. Explain what is meant by a broad-fields curriculum. Critique this approach.

14. Write a paper on the question "Why did the decade from 1955 to 1965 produce so many innovations?"
15. Read and summarize one of the national reports of the 1980s or 1990s on reform of the high school.
16. Read and summarize one of the national reports of the 1980s or 1990s on reform of the elementary school.
17. Read and summarize one of the national reports of the 2000s on reform of the elementary, middle, or high school.
18. Evaluate movements for school reform in your state as to process, substance, purpose, strengths, and weaknesses.
19. State whether you believe the school (choose any level) should limit itself to cognitive learning. Give reasons for the position taken.
20. Explain what is meant by differentiated staffing and show its advantages and disadvantages.
21. Distinguish between traditional, flexible, modular, and block scheduling and state the purposes of each.
22. Define "magnet school," state its purposes, and report on one successful example of such a school.
23. Find out if there is a residential public secondary school in your state. If there is, describe its program, its student body, its admission requirements, and its costs of operation.
24. Locate in the literature, on the Internet, or by personal contact a distance learning program for elementary, middle, or secondary school students, preferably in your state. Describe its curriculum, administration, admissions procedures, student body, teacher qualifications, promotion and retention policies, assessment practices, costs, and problems.
25. Develop a plan for using computers in the curriculum of the school that you know best.
26. Write a paper on problems a school that you know well has experienced in incorporating technology into its curriculum.

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Journals/Newspapers/Reports

Education Next. Quarterly. Hoover Institution, Stanford University, Stanford, Calif. 94305-6010. Website: <http://www.educationnext.org>.

Education Week. Editorial Projects in Education, Inc. 6935 Arlington Rd., Suite 100, Bethesda, Md. 20814-5233. Website: <http://www.edweek.org>.

The Futurist. Bimonthly. World Future Society, 7910 Woodmont Ave., Suite 450, Bethesda, Md. 20814. Website: <http://www.wfs.org/futurist.htm>.

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Calif. 94612. Website: http://essentialsschools.org/pub/ces_docs/resources/horace/horace.html.

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Technology Counts, an annual 50-state report on Educational Technology from *Education Week*. Website: <http://www.edweek.org/rc/articles/2004/10/15/tc-archive.html>.

Professional Inquiry Kit

Curriculum Integration. 1998. Eight activity folders and a videotape. Explains principles and practices of integrated curriculums. Shows how teachers can plan and execute an integrated unit, Carol Cummings,

consultant. Association for Supervision and Curriculum Development, 1703 N. Beauregard St., Alexandria, Va. 22311-1714.

Videos

Available from Association for Supervision and Curriculum Development, 1703 N. Beauregard St., Alexandria, Va. 22311-1714:

The Results Video Series. 2001. Two 25-min. videos plus on-line Facilitator's Guide. Mike Schmoker describes reform efforts that improve pupil performance.

What Works in Schools. 2003. Three 35-min. programs on DVD disk and Facilitator's Guide. Robert J. Marzano, consultant.

What Works in Schools: Translating Research into Action. 2003. Three 30-min. videotapes and Facilitator's Guide. Robert J. Marzano explains factors that affect student achievement.

Websites

American Legislative Exchange Council: <http://www.ALEC.org>

Association for Supervision and Curriculum Development: <http://www.ascd.org>

Coalition of Essential Schools: <http://www.essentialschools.org>

Electronic School: <http://www.electronic-school.com>

Foundation and Center for Critical Thinking: <http://www.criticalthinking.org>

Global Schoolhouse: <http://www.globalschoolnet.org/gsh>

International Society for Technology in Education: <http://www.iste.org>

Magnet Schools of America: <http://www.magnet.edu>

MiddleWeb: <http://www.middleweb.com>

National Association of Elementary School Principals: <http://www.naesp.org>

National Association of Secondary School Principals: <http://www.nassp.org>

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